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Modelling the prospects for Islamic Home Finance in the UK from the perspective of Independent Mortgage Brokers

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Modelling the Prospects for Islamic Home Finance in the UK from the Perspective of Independent Mortgage Brokers

A thesis submitted in partial fulfilment of the University's requirements for the Degree of Doctor of Philosophy

July 2021

Abstract

In the past, a number of studies have attempted to assess the prospects for Islamic home finance in the UK. However, most of the research has been limited to one-sided views of Islamic scholars and Muslim participants, and lacked focus on non-Muslim counterparts and industry experts. Additionally, most of the studies are now out of date due to developments in the financial environment. Furthermore, previous research followed only basic survey approaches and first-generational statistical procedures without the support of a sound conceptual framework, thereby lacking rigorousness in research. This scenario presents a need to introduce an up-to-date conceptual framework validated by a much-ignored segment: industry experts (i.e.mortgage brokers) from both Muslim and non-Muslim backgrounds.

Consequently, this study developed a conceptual framework to assess the prospects for Islamic home finance in the UK from the perspective of Muslim and non-Muslim independent mortgage brokers. To test the research framework empirically, data was collected from a sample of 144 mortgage brokers between April 2019 and October 2019 via online (using Qualtrics) and in-person surveys. The data was analysed using a partial least squares structural equation modelling (PLS-SEM) approach to examine the hypothesised relationships among the predicting constructs – *extendibility*, *accessibility*, *affordability*, *authenticity* – and the target construct *prospects* (for Islamic home finance in the UK). The path analysis revealed that *accessibility* had a significant effect on the *prospects*, whereas the impact of *affordability* on the *prospects* was found to be insignificant. In contrast, *authenticity* had the strongest direct effect on the *prospects* for Islamic home finance in the UK. The mediation analysis showed a significant indirect effect of *extendibility* on the *prospects* for Islamic home financing via the *accessibility* construct.

The group comparison analysis revealed no statistically significant difference among all hypothesised path coefficients for the Muslim vs. non-Muslim and experienced vs. less experienced mortgage brokers' data groups. Results of the post-hoc importance–performance matrix analysis (IPMA) showed *authenticity* as the most relevant factor regarding the *prospects* for Islamic home financing in the UK. On the other hand, *affordability* (cost-related) attributes of Islamic home finance were found to be performing reasonably well but considered relatively unimportant to the mortgage brokers in the current financial conditions. These results provide new and extensive insight into the field of Islamic home financing and expand the literature in this emergent field.

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In the name of Allah, the Most Compassionate and the Most Merciful.

All praise to Allah Subhanallahu Wa Ta'ala for his help, blessings and guidance which enabled me to undertake and complete this project.

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Tanveer Ahmed

Dedication

I dedicate this work to my loving mother, caring wife and both sons.

Chapter 1: Introduction

This introductory chapter discusses the background and motivation behind this study and highlights how it can advance an understanding of Islamic home finance, particularly in the UK context. The chapter begins with the rationale, followed by the aim, objectives, significance and scope. The final section presents a brief overview of the subsequent chapters.

1.1 Background and Motivation for the Current Study

In the last 10 years, there has been exceptional growth in Islamic finance despite the fact that it is an evolving industry and this has been a period of financial and economic uncertainty. This is evidenced by the latest ICD-Refinitiv (2020) report which projects that global Islamic finance assets will reach $3.69 trillion by 2024, more than double the assets recorded in 2012 ($1.76 trillion). The increase in Islamic finance is due to the huge rise in demand from the Middle East and other Muslim countries, as well as from other non-Muslim countries across the world (IMF, 2017; World Bank, 2015).

The subprime crisis of 2007–2009 had a severe financial effect on the markets. Indeed, the conventional banks suffered in terms of both their reputation and revenues. There is still a great deal of negative media coverage, and the financial services sector has not fully regained customers' trust (Chater, 2015; Stein, 2018). On the other hand, the outcome of the crisis has renewed the focus on the relationship between financial stability and Islamic banking due to its principles based on partnership, transparency and fairness (Hasan & Dridi, 2011). Such values support the creation of a healthier and more stable financial system, as

evidenced by the recent subprime financial crisis when Islamic banks felt relatively few financial shocks (Iqbal & Mirakhor, 2011; Warde, 2012). The ethical principles associated with Islamic finance have attracted non-Muslims who have now begun to purchase Islamic financial products and services (Alam & Seifzadeh, 2020; Lee, 2017; Saiti, Ardo, & Yumusak, 2019), a trend noticed in Hong Kong, Singapore, Luxembourg, South Africa, the UK (World Bank, 2015) and particularly Malaysia (AsiaOne, 2015).

Having recognised the appeal of Islamic finance, in 2013 the UK government established an Islamic Finance Task Force (IFTF) to promote London as a European hub for this sector. As a measure of the success, Islamic banks in the UK have expanded and now have assets of over £5bn (Hauser, 2020). However, it must be pointed out that the reported growth in Islamic home finance has been somewhat anecdotal. According to data published by the UK's first standalone Sharia'h-compliant bank, Al Rayan Bank (formerly known as Islamic Bank of Britain), in 2015 there was a 50% increase in Islamic mortgages, equating to £311.6 million (Al Rayan Bank, 2015). Meanwhile, Al Rayan Bank's gross home financing has also been encouraging although some would say this has been relatively slow bearing in mind the bank began its operations in 2004. Moreover, the withdrawal of Lloyds and HSBC from the Islamic home finance market in 2010 and 2012 respectively has raised questions about the prospects for Islamic home finance in the UK.

There is no doubt that Islamic finance is still in its early stages of development (World Bank, 2015). However, Islamic finance is becoming an alternative option due to its principles based on partnerships and fairness. The equitable nature of Islamic home finance makes it unique and promotes a healthier and more stable financial

system. Despite this, there appears to have been very little upward trend in the UK. Nevertheless, with the rapidly changing financial environment, the government's ambitious plan to promote London as an Islamic finance hub and the changing attitude of consumers towards ethical finance, there may a change in the prospects for Islamic home finance in the UK. This scenario presents an opportunity to explore the prospects of Islamic finance in the UK in the current context.

Over the last two decades, Islamic home finance has attracted considerable attention in the global academic literature. In the context of the UK, a number of empirical studies (e.g., Masood et al., 2009a; Tameme, 2009; Tameme & Asutay, 2012) have attempted to assess the challenges, scope, potential and demand for Islamic home finance. However, to date, the vast majority of the extant studies have followed a customer-oriented perspective with little attention paid to the views of industry experts. However, some studies (e.g., Galadima, 2015; Hersi, 2009; Masood & Bellalah, 2013) involved scholars and participants from various walks of life, but they tended to be restricted to one-sided views (Muslims only) and they failed to take account of opinions voiced by independent and industry-led experts.

Similarly, other studies (e.g., Akbar, Shah & Kalmadi, 2012; Dar, 2004; Hussain, 2014; Khan, 2012; Riaz, 2014; Riaz, Burton & Monk, 2017) adopted a one-size-fits-all approach by focusing on an overall picture of Islamic finance without any real emphasis on Islamic home finance. Some secondary research that solely focused on Islamic home finance (e.g., Masood et al., 2009a; Matthews, Tlemsani & Siddiqui, 2003) is essentially out of date owing to changes in the demographic landscape of the Muslim population and developments in the financial environment.

As the current literature has a high degree of sampling bias (i.e., mono-religious bias with Muslim customers and Islamic scholars) and ill-conceived participants (e.g., low socio-economically active Muslim customers), it raises doubts as to its reliability, generalisability and practical relevance. This also begs the question of how (financially seasoned) non-Muslims view the prospects of Islamic home finance in comparison to their Muslim counterparts. Furthermore, most of these studies suffer from a lack of a strong theoretical framework. Taken together, these limitations have created huge and important gaps in the literature on Islamic home finance and this is the motivation behind this study which fills in this gap.

Unlike the majority of previous studies that were narrowly confined to one particular Muslim segment, community or small geographical area, and overly reliant on non-industry experts, this research shifts this focus and examines the perspectives of the most neglected yet important stakeholders: fully qualified FCA-approved mortgage consultants. There are numerous reasons that justify the contribution of the independent mortgage brokers' perspectives in this study. Firstly, the vast majority of mortgages (i.e., approximately 70%) in the UK are arranged through mortgage brokers (Intermediary Mortgage Lenders Association, 2015; Kirkman, 2018). Secondly, some Islamic banks such as the Bank of London and the Middle East (BLME) offer execution-only Islamic home finance and do not offer home finance advice to potential clients, thus making the role of a mortgage broker important in the Islamic home financing industry. Thirdly, Islamic banks, for example Al Rayan Bank, offer an attractive procuration (commission) fee of 0.35% of the finance amount to mortgage brokers for procuring home finance deals for potential clients. This incentive further reflects the significance of the mortgage brokers in the Islamic home finance market. Lastly and most importantly, unlike average Muslim

customers, mortgage brokers hold first-hand knowledge of the whole mortgage market, including conventional and Islamic home finance. Therefore, for these reasons, mortgage brokers appeared to be very suitable participants for this study and their views on the prospects for Islamic home finance in the UK cannot be ignored.

This research also considers the impact of religion on the prospects for Islamic home finance by taking into account the views of both Muslim and non-Muslim mortgage brokers thus overcoming the issue of mono religious bias. Besides the religious aspect, this study also considers the moderating effect of mortgage brokers' lived experience on the prospects for Islamic home finance in the UK. The key reason for this initiative is to investigate whether experienced mortgage brokers who witnessed the subprime mortgage crisis have a different perspective on the prospects for Islamic home finance compared to a novice financial expert (i.e., having less than 10 years' experience) who did not experience this crisis. This proposition will not only allow us to make a more accurate assessment, but it will also explore whether the sustainability of Islamic home finance during the subprime crisis has influenced the perception of mortgage brokers vis-à-vis its prospects in the UK market.

Finally, the majority of the existing research has a notable methodological limitation relating to the common use of first-generation statistical procedures (i.e., descriptive data analysis, linear regression and ANOVA). This study endeavours to shift the focus from these commonly used analyses as it applies an innovative approach to predict the views of both Muslims and non-Muslims regarding the prospects for

Islamic home finance in the UK. It achieves this by utilising a second generation of multivariate analysis: partial least squares structural equation modelling.

1.2 The Aim and Objectives of the Study

In light of the background described above, the main underlying aim of this research is as follows:

To develop a conceptual framework to assess the prospects for Islamic home finance in the UK from the perspective of (Muslim and non-Muslim) mortgage brokers.

In order to achieve this aim, the following key objectives have been set:

To examine the significance of the direct and indirect effects of the independent and mediator construct(s) on the target construct, i.e., prospects for Islamic home finance in the UK.

To test the moderating effects of religion and experience on the path relationships among the research framework constructs.

To carry out an importance–performance map analysis (IPMA) to identify the key and high-priority improvement areas in the conceptual framework.

To draw theoretical and practical implications from the findings on the Islamic home finance industry and the relevant stakeholders in the UK.

1.3 Significance of this Study

This study aims to examine the factors that affect the prospects for Islamic home finance in the UK from the perspective of independent mortgage brokers. The

findings of this research are not restricted to any one particular stakeholder. Rather, it will assist a wide range of stakeholders in the field of Islamic home finance, including banking regulators, government agencies, the financial community, policymakers, academics, religious scholars and potential customers, to name but a few. In particular, the findings of this study will provide valuable resources to Islamic banks currently operating in the UK, as well as assist overseas banks that are potentially planning to enter the UK market.

The nature of this study differs substantially from previous research in the domain of Islamic home finance, which makes it unique in many ways. This research is one of a kind as it attempts to assess the prospects for Islamic home finance from the perspective of real industry practitioners and financially seasoned participants – independent and strictly FCA[1] - regulated mortgage brokers – in order to yield more conclusive and credible findings. The industry-driven findings will particularly help Islamic banks to improve their strategic decision-making about the long-term future prospects for Islamic home financing in the UK.

This research is also pioneering in the way that it addresses the religious bias found in the literature. Accordingly, the study adopts an unorthodox approach to assess the prospects for Islamic home finance in the UK from multi-religious perspectives (Muslim and non-Muslim). Hence, the study carries out multi-group analysis using the parametric approach between Muslims and non-Muslim's mortgage brokers data groups to examine the categorical moderating effect of religion on the research model's relationships. Theoretically, the inclusion of Muslims and non-Muslim perspectives on the subject will go a long way to rectify the gap in the literature.

[1] Financial Conduct Authority.

While, in practical terms, it is hoped that by uncovering the similarities or differences between Muslims and non-Muslims mortgage brokers, the Islamic banks will be better armed with knowledge about the potential impact of the religion on the prospects for Islamic home finance, which in turn can support banks to align the most effective deployment strategies.

Another compelling contribution of this study is the integrating of the moderating effect of mortgage brokers' experience into the research framework. The key reason for this step is to understand whether or not changes in the financial environment over the last decade (e.g., the sub-prime mortgage crisis) and the transformation of Islamic home finance into mainstream market has significantly affected mortgage brokers' views regarding the long-term prospects for Islamic home finance in the UK. It is expected that group comparison analysis between experienced mortgage brokers with life-time knowledge and first-hand experience of the sub-prime crisis (i.e., > 10 years' industry experience) vs novice mortgage brokers (<10 years' experience) will provide new insights into the field of study, by uncovering clear-cut differences and similarities between highly-experienced vs less experienced mortgage brokers. The findings of the multi-group analysis comparing highly-experienced against less experienced mortgage brokers will make a substantial contribution to the existing literature by proclaiming the impact of the past events, such as the subprime crisis and the development of Islamic home finance through mortgage brokers' lived experience. From a practical point of view, the outcome of the analysis will be very beneficial to the Islamic banks operating in the UK. The findings will provide them with a great opportunity to reflect, to see whether transformation, resilience, and sustainability of Islamic home financing over the

years have, in fact, made any positive impact on the industry's experts towards its future prospects in the UK.

In addition, this study sets a new trend in the research field by performing an advanced and innovative procedure – importance-performance map analysis (IPMA) – which has rarely been used in this subject area. It is believed that the results of the IPMA analysis will help identify the high-priority development areas which could potentially enable Islamic banks to improve their decision-making, marketing strategies and policymaking.

From the academic perspective, this study develops and introduces a much-awaited consolidated conceptual framework for the research community in the field of Islamic home finance, driven by an extensive literature review, interviews with the industry's experts and the researcher's own experience in this sector. The proposed research framework will provide a great opportunity to other researchers who can extend and modify the research framework and also test it by involving existing and potential customers of Islamic home finance in the UK.

1.4 Scope of this Study

The main purpose of this study is to explore the prospects for Islamic home finance in the UK in the current context from the perspectives of Muslim and non-Muslim independent mortgage brokers. This will be achieved through a survey strategy that adopts a purposive sampling technique. The majority of the data will be collected across London from individual mortgage brokers as well as from some of the leading mortgage brokerage firms in the UK with offices in London. Whilst every effort will be made to produce comprehensive results, obtaining a very large sample may

prove problematic as it is difficult to reach the target audience due to the nature of this business.

1.5 Organisation of the Thesis

This study is divided into eight chapters. The following section sets out the contents and explains the reasons for including each chapter.

After the background/introductory chapter, **Chapter 2** discusses the various contracts for Islamic home finance enacted in the UK and worldwide. The chapter also highlights the ways in which the Islamic financial market has evolved over the last three decades, particularly in the UK. In addition, this chapter carries out an up-to-date assessment of the mortgage market and the existing profile of the Muslim population in the UK from the latest sources.

Chapter 3 seeks to justify the basis for the proposed research issue by identifying the gaps in the existing literature. It firstly reviews the literature pertaining to Islamic banking and finance, followed by critical analysis of the existing literature that relates in particular to Islamic home finance in the UK. The chapter concludes with summarising the shortcomings found in the existing literature and explains how this study attempts to address gaps discovered in the field of Islamic home finance in the UK.

Chapter 4 discusses the research approach, research strategy, research techniques and procedures that are utilised in this study. This chapter lays out a roadmap consisting of all the necessary steps required to achieve the research aim, from identifying the target audience and calculating the sample size to developing a new scale and taking steps (e.g., item generation, content validity, pre-testing,

scale validity and reliability) in order to develop a sound framework for fulfilling the key aim of the research.

Chapter 5 aims to explain and discuss the development of the proposed conceptual framework to predict the prospects for Islamic home finance in the UK. It further highlights the strategy of integrating religion and experience as categorical variables in the conceptual framework. Moreover, this chapter also examines the research hypotheses and definitions of the constructs used throughout this thesis.

Chapter 6 presents the first stage of the PLS-SEM results and evaluates the constructs' reliability and validity, such as indicator reliability, internal consistency reliability, composite reliability, convergent validity, average variance extracted (AVE) and discriminant validity. It also highlights the background to the structural equation modelling (SEM) and the selected statistical technique (PLS-SEM).

Chapter 7 assesses the second stage of the PLS-SEM results. This involves assessing the results of the structural model by examining the collinearity issues, the path coefficients which test the strength of the hypothesised relationships between constructs and the model's predictive capability. This chapter also assesses the effect size (f^2), predictive relevance (Q^2), mediation, multi-group analysis and the importance–performance matrix analysis (IPMA).

Chapter 8 discusses the empirical results attained in Chapter 7 and relates the outcomes back to the research objectives and research problems that underpin this study. The results are discussed in relation to the existing literature and the conceptual framework. The chapter begins with a summary of the study, including an overall review of the theoretical background that supports the hypotheses. It also examines the theoretical and practical implications of the study. The chapter

concludes by discussing the limitations of this project and offering suggestions for further research.

Chapter 2: Development of Islamic Home Finance

2.1 Introduction

This chapter aims to discuss the various contracts for Islamic home finance used in the UK in particular, and across the world in general. First, it highlights how the Islamic financial market has evolved over the last three decades, both globally and in the UK. Subsequently, the chapter carries out an assessment of the mortgage market, various structures of Islamic home finance as well as the existing profile of the Muslim population in the UK drawing on the latest sources.

2.2 The Global Development of Islamic Finance

Over the last two decades, Islamic finance has gained a tremendous awareness worldwide, and has seen substantial growth (Hussain, 2014, ICD-Refinitiv, 2020). Its rise from a single Islamic bank in 1975 to over 360 financial institutions today, operating in more than 75 countries is evidence of its phenomenal success (El Qorchi, 2005; Sufian, Zulkhibri, & Majid, 2015; The Banker, 2015). Even though demand for Islamic finance originates primarily from the Muslim segment, there also appears to be an increasing appetite for such forms of finance from non-Muslim entities and individuals. Malaysia is seen as a classic example of this trend, where the majority of Islamic finance clients are non-Muslim (AsiaOne, 2015). A recent World Bank (2015) report also stated that Islamic finance is fast becoming a useful tool for financing development globally, in both Muslim and non-Muslim countries.

In terms of worldwide assets, Islamic finance has increased its assets threefold since the beginning of the financial crisis in 2007 (TheCityUK[2], 2015). The recent ICD-Refinitiv Islamic Finance Development Report (2020) expects the market for Islamic finance to exceed $3.69 trillion by 2024 (see Figure 2.1), with Ernst and Young predicting that it will reach $3.4 trillion (Wigglesworth, 2014).

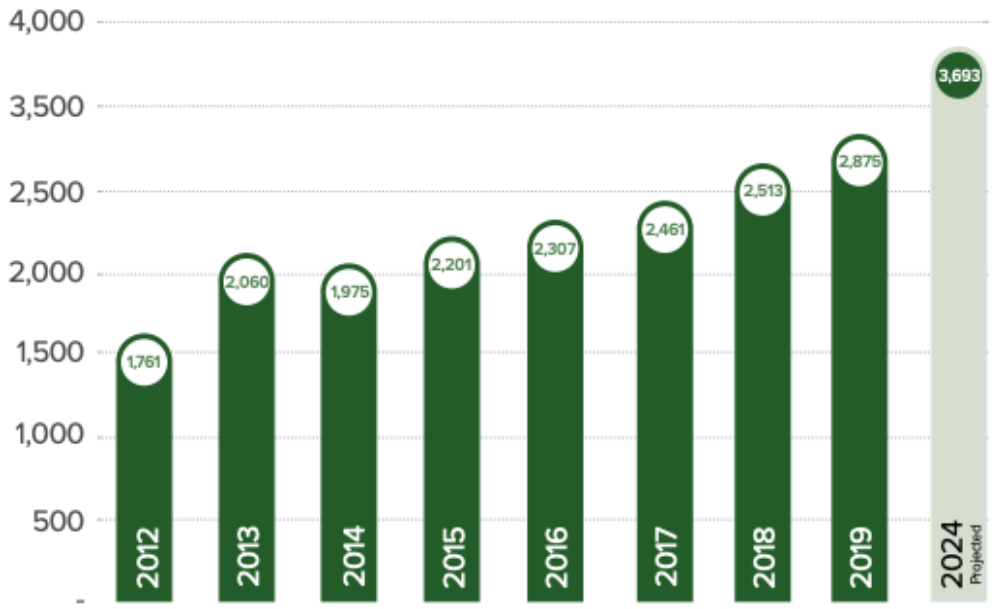

Figure 2. 1 *The Growth of Global Islamic Finance Assets (US$ Billion)*
Source: ICD-Refinitiv (2020)

This trend is projected to continue, backed by strong economies in the Islamic world and the growing Muslim population, which now accounts for over one fifth of the global population (TheCityUK, 2015; 2017; 2019). Nevertheless, Islamic finance still accounts for just 1% of total financial assets worldwide, due partly to the relatively under-banked countries of the Muslim world (IMF, 2017).

[2] TheCityUK is a private sector industry-led membership body promoting UK-based financial and related professional services industry.

2.3 The Development of Islamic Finance in the UK

Islamic finance appeared in the UK market in the early 1980s with the introduction of the first Islamic bank, Al Baraka International bank, in 1982 (TheCityUK, 2015; UK Trade & Investment, 2014). In 1983 and 1997 respectively, Takaful UK Limited and the United Bank of Kuwait were established to satisfy the needs of British Muslims by providing them Sharia'h-compliant home purchase finance and other forms of credit (Belouafi & Chachi, 2014). The period between the 1990s and the early 2000s saw comparatively slow progress in the development of Islamic retail banking (Ainley, et al. 2007). However, in 2001, the UK government took the extraordinary step of forming a high-powered working committee to examine the factors affecting the growth of Islamic finance in the country (UK Trade & Investment, 2014).

In 2003, the government developed a financial and regulatory framework to speed up the expansion of Islamic financial products. This included the withdrawal of double stamp duty, as well as tax relief on Sharia'h-compliant home financing, designed to provide an equal playing field for both Islamic and mainstream financial products (TheCityUK, 2015; 2017; 2019). In the same year, HSBC launched an exciting Islamic current account and certain home-finance products (Belouafi & Chachi, 2014). A year later, the UK became the first country in the Western world in which a fully-fledged Islamic retail bank was established — the Islamic Bank of Britain (IBB), and in 2005, London became a hub for secondary-market trading in Islamic instruments (Belouafi & Chachi, 2014; UK Trade & Investment, 2014).

In 2010, however, Lloyds, which had launched its flagship Sharia'h-compliant mortgage with great fanfare in 2004, ceased offering Islamic mortgages, citing

problems caused by the credit crunch (Knight, 2010). Two years later, HSBC also decided to abandon Islamic mortgages, nearly a decade after it had entered the Islamic home finance market (Clark, 2012). Although this move was part of HSBC's global restructuring, and was based on broader economic considerations (Jenkins & Hall, 2012), the decision nonetheless raised questions about the long-term potential of the UK Islamic home finance market (Verdict Financial, 2012).

Despite these setbacks, by 2012 the United Kingdom had become the 9th largest country in terms of Sharia'h-approved assets in the world, with twenty financial institutes offering Islamic finance and five fully Sharia'h-compliant banks (GOV.UK, 2013; TheCityUK, 2017). In 2013, the UK government launched its first Islamic finance task force to collaborate with the UK Islamic Finance Secretariat (UKIFS) and other bodies to improve and promote the international profile of the country in the field of Islamic finance (Belouafi & Chachi, 2014). In the same year, London hosted the 9th World Economic Forum, the first time such a major event had been held outside of Asia and the Middle East. At this Forum, the former UK Prime Minister, David Cameron, emphasised the UK's position as a hub and global partner of choice for Islamic finance. He stated:

"The UK—and London in particular—has already become a centre for Islamic finance. More than a dozen banks deliver Islamic finance transactions. There is hardly a large professional services firm that does not have specialist Islamic finance teams. Moreover, Islamic finance has helped transform London's skyline by financing in whole or in part developments such as The Shard, Chelsea Barracks, Harrods and the Olympic Village."

Today, the United Kingdom has become the most advanced Islamic financial centre in Europe (Belouafi & Chachi, 2014; TheCityUK, 2017; 2019). In 2014, the UK's

success in the issuance of Sovereign Sukuk turned out to be a key landmark in the growth of the Islamic finance industry internationally (TheCityUK, 2017; 2019). Without a doubt, Islamic finance has now become a visible part of the UK's economic skyline (Rowley, 2014). Figure 2.2 illustrates the evolution of Islamic finance in the UK, representing the sector's history and its extraordinary rise from a banking and regulatory perspective.

Due to the positive steps taken by the government, the UK is now well placed to capitalise on the growing share of Islamic financing business in the coming years (UK Trade & Investment, 2014). According to the recent Edbiz Consulting (2019) report on the Global Islamic Finance Country Index (see Table 2.1), the UK was ranked 17th out of 47 countries, not just the leading nation in Europe but also ahead of the field among non-Muslim-majority countries such as the USA (21st), Switzerland (27th), Canada (33rd), Germany (40th) and France (45th).

Table 2. 1 *Islamic Finance Country Index 2019 (selected countries)*

Country	2019 Score	2019 Score
Indonesia	81.93	1
Malaysia	81.93	2
Iran	79.93	3
Saudi Arabia	60.65	4
Sudan	55.71	5
UK	**6.67**	**17**
Sri Lanka	3.89	23
USA	4.37	21
Switzerland	2.21	27
Canada	1.99	33
Germany	0.88	40
France	0.67	45

Source: Edbiz Consulting (2019)

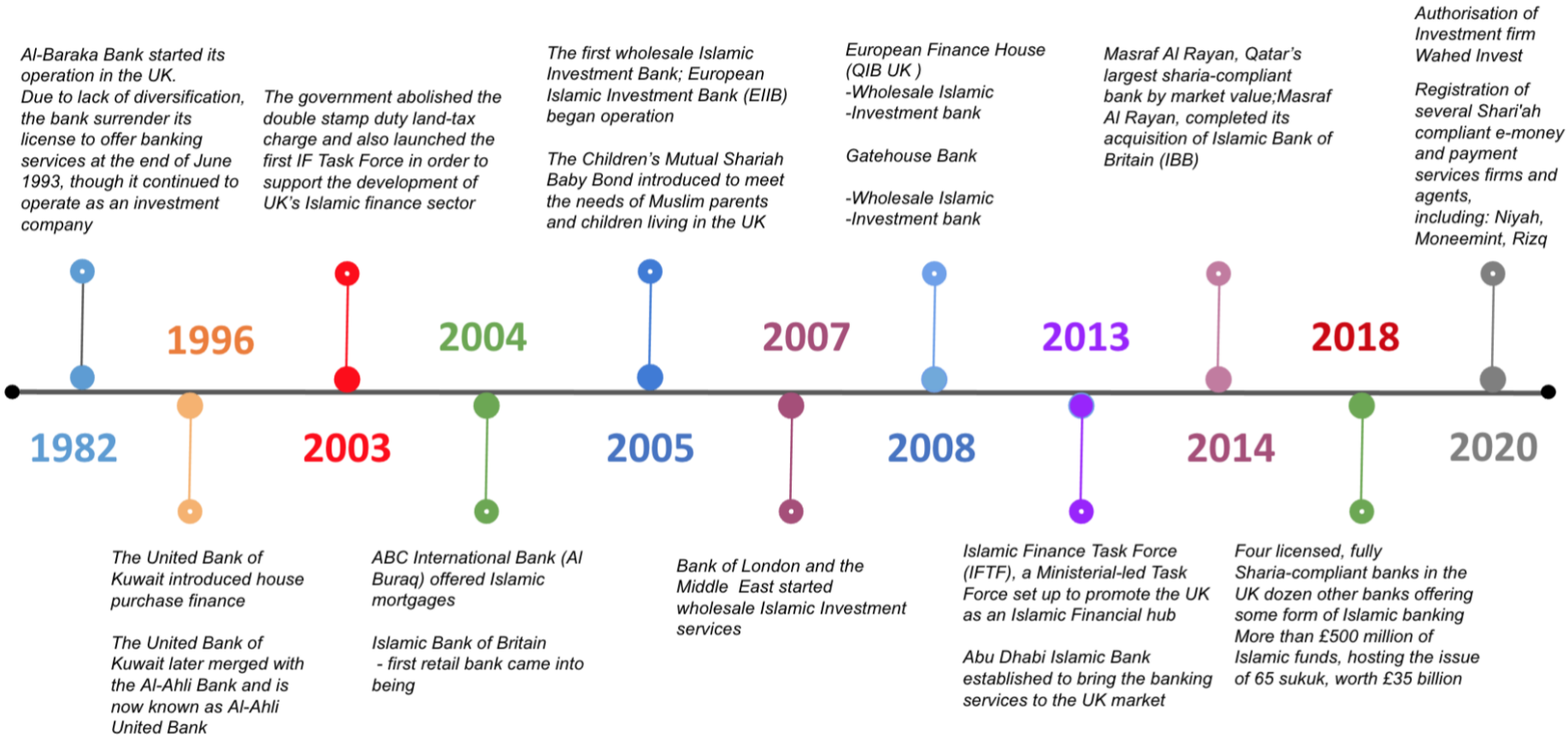

Figure 2. 2 *Development of Islamic Financial Institutions and main Regulatory Development in the UK*
Sources: Belouafi and Chachi (2014); Hauser (2020); Hesse, Andreas and SoléJuan (2008); Iqbal and Mirakhor (2011); UK Trade & Investment (2014)

Furthermore, the latest ICD-Refinitiv Islamic Finance Development Report (2019) ranks the UK ahead of other important centres for Islamic finance. This report allocates the UK an index value of 12.21, placing it well above the global average of 10.79, and also assigning it the second highest rating of any non-Muslim country, followed by Singapore with an index value of 15.58. In addition, compared with other non-Muslim-majority countries, the UK scores very strongly in most categories, as illustrated in Table 2.2 below.

Table 2. 2 *Islamic Finance Development Indicator in Selected Countries*

Countries	IFDI*	Knowledge	Governance	CSR	Awareness
UK	**12.21**	**14.94**	**11.18**	**26.62**	**6.71**
Australia	7.69	6.11	24.78	3.38	3.66
Canada	2.27	1.15	6.78	0.00	2.09
France	1.44	2.11	4.31	0.00	0.63
Germany	1.15	0.54	4.36	0.00	0.73
Hong Kong	0.90	0.96	0.00	0.00	2.80
Ireland	1.06	0.00	0.00	0.00	3.90
Luxembourg	4.39	3.68	5.56	15.6	4.41
Netherlands	0.69	1.43	0.00	0.00	1.87
Singapore	15.58	5.78	39.54	10.25	14.14
Switzerland	6.85	1.94	9.23	20.48	1.81
US	2.80	1.78	4.88	0.00	2.47
Global Average	10.79	10.16	14.05	8.18	15.56

Source: ICD-Refinitiv (2019) * *Islamic Finance Development Indicator*

The UK is now home to four fully-fledged Islamic banks offering various home financing products to UK customers. Recently, Islamic home purchase plans have emerged as a competitive and viable option for potential clients in the UK. This is evident from a cross-comparison mortgage analysis between the two key Islamic banks (i.e., Al Rayan and Gatehouse Bank) and the 20 largest banks in the UK, based on their gross mortgage

lending in 2020 (UK Finance, 2020). The results reveal that, considering Islamic banks are small and relatively new in the UK, their standard variables rates (SVR) are outperforming the majority of the high street and well-established banks in the UK, as shown in Table 2.3.

Table 2. 3 *Mortgage Market Analysis*

Conventional mortgage providers		Islamic Banks			
		Gatehouse	**Difference**	**Al-Rayan**	**Difference**
	SVR[a]	SVR		SVR	
Lloyds Banking Group[b]	4.44%	3.85%	0.59%	4.09%	0.35%
Nationwide BS	3.59%	3.85%	**-0.26%**	4.09%	**-0.50%**
NatWest Group[c]	3.59%	3.85%	**-0.26%**	4.09%	**-0.50%**
Santander UK	4.34%	3.85%	0.49%	4.09%	0.25%
Barclays	4.59%	3.85%	0.74%	4.09%	0.50%
HSBC Bank	3.54%	3.85%	**-0.31%**	4.09%	**-0.55%**
Virgin Money	4.34%	3.85%	0.49%	4.09%	0.25%
Coventry BS	4.49%	3.85%	0.64%	4.09%	0.40%
Yorkshire BS	4.49%	3.85%	0.64%	4.09%	0.40%
TSB Bank	3.59%	3.85%	**-0.26%**	4.09%	**-0.50%**
Skipton BS	4.60%	3.85%	0.75%	4.09%	0.51%
Co-operative Bank	4.34%	3.85%	0.49%	4.09%	0.25%
OneSavings Bank[d]	5.00%	3.85%	1.15%	4.09%	0.91%
Bank of Ireland	4.09%	3.85%	0.24%	4.09%	0.00%
Leeds BS	5.29%	3.85%	1.44%	4.09%	1.20%
Metro Bank	3.60%	3.85%	**-0.25%**	4.09%	**-0.49%**
Principality BS	4.40%	3.85%	0.55%	4.09%	0.31%
Aldermore Bank	4.58%	3.85%	0.73%	4.09%	0.49%
Paragon Banking Group	4.95%	3.85%	1.10%	4.09%	0.86%
Kensington Mortgages	4.40%	3.85%	0.55%	4.09%	0.31%
Average SVR (All mortgages in UK)	4.41%	3.85%	0.56%	4.09%	0.32%

[a] At the end of March 2021, there were nearly 3532 mortgage products available in the UK mortgage market with varying deposit requirements, introductory deals and arrangement fees (Moneyfacts, 2021). To carry out an accurate cost comparison analysis based on these attributes may provide somewhat unreliable results as deposits, arrangement fees and introductory rates/offers fluctuate regularly. Therefore, an overall true cost of the life of the mortgage is analysed based on a more stable standard variable rate (SVR) which is not affected by loan to value or deposit requirements.

[b] Lloyds Bank SVR is taken as a representative of Lloyds Banking Group

[c] NatWest SVR is taken as a representative of NatWest Group

[d] Kent Reliance SVR is taken as a representative of Bank respectively.

Other Islamic banks, QIB and Ahli Bank do not advertise their home financing rates on their websites, therefore they are not included in the above analysis. Figures are correct as of 7th April 2021

As evident from the above table, the SVRs of Islamic banks i.e., Gatehouse and Al Rayan bank are 3.85% and 4.09% respectively and currently 0.59% and 0.35%, lower than Lloyd's bank SVR; 4.44%. Similarly, Barclays (4.59%) and Santander (4.34%) SVRs appeared to be higher than Gatehouse (3.85%) and Al Rayan SVR (4.09%), reflecting a difference of 0.74% and 0.49% respectively. Interestingly, the SVRs of Gatehouse and Al Rayan bank are also lower than the industry's average SVR of 4.41%. The latest mortgage market analysis led to the conclusion that, despite being a relatively new entrant into the financial sector, Islamic home finance has not only developed quickly, but is also fast becoming a competitive home financing product in the UK mortgage market.

2.4 Models of Islamic Home Finance

Traditionally, three structures of Islamic home finance have been offered in the UK, namely diminishing *musharakah*, *Ijarah wa Iqtina* and *murabaha*. As the market developed, diminishing *musharakah* has become the most widely used contract in the UK market. The above-mentioned contracts are sequentially discussed in the following section.

2.4.1 Diminishing *musharakah* (declining partnership)

Musharakah is a term that means "joint venture" or "partnership", while diminishing *musharakah* is another form of *musharakah* developed to cater to Islamic home financing (home purchase). Under a diminishing *musharakah* (also called "declining partnership" or "declining balance"), the bank and the home purchaser jointly become partners in a property. The client benefits from an exclusive occupation of the property and pays rent

to the (Islamic) bank on the part of the property which is possessed by the Islamic bank (Amin, 2011).

In addition to the rental payment, over the lifetime of the home purchase arrangement, the client regularly contributes monthly equity payments and eventually takes over the sole ownership. Throughout the lifetime of the home finance, the homebuyer does not pay any interest nor does any payment compound. The homebuyer simply pays affordable monthly payments towards the home equity and the rent for the remaining portion of the property they do not yet own. Here, what differentiates Islamic home finance from conventional mortgages is that traditional mortgages involve loaning cash on interest whereas Islamic home financing is strictly the exchange of an asset (Ethica, 2017).

The fundamental difference between a conventional mortgage and an Islamic home purchase plan is that the former involves loaning cash on interest whereas the latter is strictly the exchange of an asset. Another one of the important attributes of Islamic home finance (diminishing *musharakah*) which distinguishes it from conventional mortgaging is the element of fairness. For example, with late payments, Islamic banks do not profit from any extra income besides charging fees to cover the associated administration costs. Once the costs have been recovered, any additional amount is donated to charity, which has a positive impact on the economy and the local community.

Similarly, if a customer is unable to make the scheduled principal payments, there is no threat of repossession. The client simply pays the rent and does not add to their ownership shares. This reduces stress and insecurity and makes for a more harmonious and equitable society (Ahmad, 2010). In cases where the client is unable to pay the rent,

however, they could be required to vacate the house, just as if they were renting from anybody else, but the customer would not lose their ownership equity. If the house were to be sold, the client would get their share of the proceeds based on the percentage of the equity that they own. A diminishing *musharakah* contract representing a home purchase plan is shown in Figure 2.3 below.

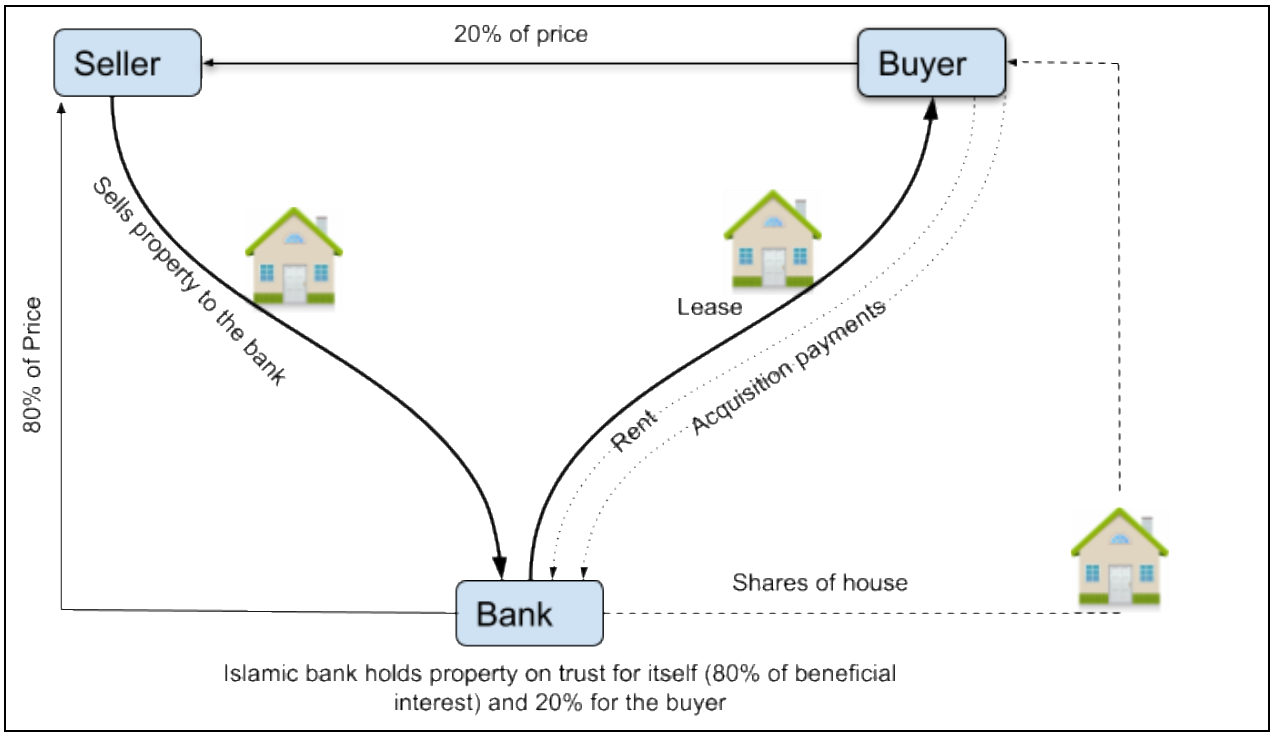

Figure 2. 3 *Diminishing Musharakah Contract (Home Purchase Plan)*
Source: Derived from Gov.UK (2019)

2.4.2 *Ijara wa Iqtina* (leasing)

Sharia'h compliant leasing *Ijara wa Iqtina* is a widely used Islamic home financing instrument (Kettell, 2011a). Under the *Ijara wa Iqtina* structure, the bank (lessor) buys a property chosen by its customer for an agreed price and then grants a lease (*ijarah*) on similar terms to conventional financial leasing to a customer (lessee) with an additional

promise by the lessor that he will agree to sell the leased property at the end of the term or when the arrangement is ended at a predetermined agreed residual value (Kettell, 2011a; 2011b, Gov.UK, 2019). In this process, the lessor profits from the client's rental payments for use of the property (Kettell, 2011b). The agreed lease is usually long enough to require registration under the Land Registration Act 2002 (Gov.UK, 2019).

When the customer wants to sell or end the arrangement, they can give notice at any time to the bank and the property is then either transferred to the customer for the price originally agreed less the on-account payments, or the customer can direct the lender to sell on to a third party, arrangements being made for the termination of the lease.

2.4.3 *Murabaha* (cost-plus margin)

Murabaha is a cost-plus sales contract and is no longer frequently used for home purchase in the UK, but sometime used in commercial property financing (Green 2020). In general, through a *murabaha* transaction, the Islamic bank purchases a property from the seller on behalf of the client who does not have the capital. The bank then immediately sells the property back to the buyer on a deferred sale basis with a mark-up reflecting the financier's profit (Greuning & Iqbal, 2008; Zaher & Hassan, 2001). The buyer makes instalment payments towards the agreed price, including the mark-up for the property, effectively securing property without repaying interest (AL-Mutairi, 2010). A simple *murabaha* structure for home finance is shown in Figure 2.4 below.

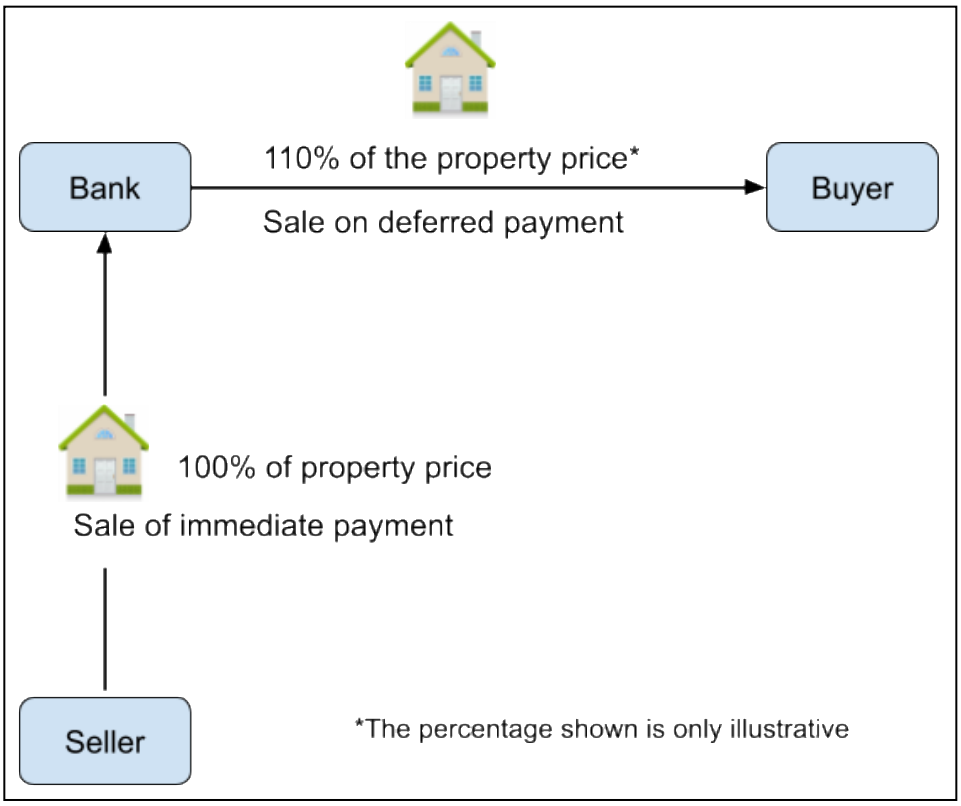

Figure 2. 4 *Simple Murabaha Home Purchase Contract*
Source: Gov.UK (2019)

The above three home financing models as applied in the UK market are frequently practised across the world, though with different names, but connoting the same structure. For example, in the United States, Guidance Residential, an Islamic home financing company calls a diminishing *musharakah* contract a declining balance co-ownership program, while Manzil finance in Canada simply refers it as *musharakah*. In Malaysia, a diminishing *musharakah* structure is commonly known as a *musharakah mutanaqisah* and in the Middle East and Pakistan broadly as *musharakah* and diminishing *musharakah*.

The only exception is the practice of deferred payment structure known as *bai-bithaman-ajil (*BBA), which is deeply rooted in Malaysia, Indonesia and Brunei's Islamic home

financing sector. However, this contract has been consistently criticised, especially by scholars from the Middle East who claim it to be analogous to its conventional counterparts, since it involves difference of price involving time that may fall into *riba* (Aris et al., 2012; Muwazir, et al., 2020). More recently, Islamic banks, especially in Malaysia, have withdrawn *bai-bithaman-ajil* contracts (Alfatakh, 2019) and adapted an alternative and fully Sharia'h compliant home financing structure, namely, *Ijarah muntahiya bit tamlik* or lease ending with ownership (Yustiardhi et al., 2019). This Malaysian version essentially follows in the footprints of *Ijara wa Iqtina* that is practiced in the UK. However, other countries in the region, for example in Brunei, controversial *bai-bithaman-ajil* is still a dominating home financing contract (Muwazir, et al., 2020).

2.5 Profile of the Muslim Population

Having explored the development of Islamic finance in the UK over the last three decades, reported the current standing of Islamic home finance products in the UK mortgage markets, and discussed various home financing contracts, this section analyses the changes in the Muslim population over the last two decades. This is an important step as reviewing the past and existing profiles of the Muslim population in the UK will promote an understanding of the level of market potential and the prospects for Islamic home finance in the UK.

Islam is the second largest religion in the United Kingdom. The latest data from Pew Research (2017) on the Muslim population in the UK reveals that the Muslim population has seen an increase from 1,600,000 to 2,706,000 between the 2001 and 2016, representing 3.07% and 4.80% of the overall population respectively. In 2016, the total population of Muslims in the UK was estimated to have grown to a record 4,130,000 (Pew

Research, 2017) representing 6.3% of the total population. This means that the Muslim population has increased by a phenomenal 190% from 1991 to 2016, as shown in Table 2.4 below.

Table 2. 4 *Change in the Muslim Population Profile in the UK*

Year	Number of Muslims	% of Population	±%
1991	950,000	1.65	-
2001	1,600,000	3.07	+68.42
2011	2,706,000	4.80	+69.13
2016 (est)	4,130,000	6.30	+52.62

Sources: Pew Research (2017); Office for National Statistics, Census (2001; 2011)

Geographically, the vast majority of Muslims in the UK live in England (2,660,116 or 5.02% of the population), while 76,737 Muslims live in Scotland (1.45%), 45,950 (1.50%) in Wales and 3,832 (0.21%) in Northern Ireland, as shown in Table 2.5.

Table 2. 5 *Muslim Population in England, Scotland, Wales and Northern Ireland*

Year	Country	Number of Muslims	% of population
2011	England	2,660,116	5.02
2011	Scotland	76,737	1.45
2011	Wales	45,950	1.50
2011	Northern Ireland	3,832	0.21

Sources: Office for National Statistics, Census (2011); Scotland Census (2011); Northern Ireland Statistics and Research Agency (2011)

The Muslim community is ethnically diverse with a significant number of Muslims from every ethnicity category recorded in the census (The Muslim Council of Britain, 2015). The largest ethnic category is “Asian”, with the Pakistani community comprising the largest share (38%), followed by Bangladeshis (14.9%) and Indians (7.3%). Approximately 6.6% of Muslims are of “Arab” ethnicity and about 20% can be attributed to the “Other Asian” and “Other Black” categories (Office for National Statistics, Census

2011). Interestingly, the Muslim population has a different age profile to the rest of the UK. It is younger than the overall population with a much greater proportion of children aged 15 or under. Overall, 33% of the Muslim population was aged 15 or under in 2011 compared to 19% of the total UK's population. Correspondingly, the Census 2011 data also reveals that nearly half of the Muslim population in the UK falls under 25 as seen in Table 2.6 below.

Table 2. 6 *Overall Population and Muslim Population Age Profiles*

Age Group	Overall population	Muslim population
0–4	6%	11.7%
5–15	13%	21.3%
16–24	12%	15.3%
25–64	53%	48.7%
65+	16%	3.9%

Source: Office for National Statistics, Census (2011)

The data from the 2011 census further suggests that the percentage of overall aged over 65 was 16% as compared to Muslims – 3.9% while merely 6.9% of the Muslim population falls into the 55–74 age bracket (see Table 2.7).

Table 2. 7 *Muslims in 55–74-Year-Old Age Group (2011)*

Age Group	Muslims	Muslims as % of the overall Muslim population
55–59	75,000	2.8
60–64	46,890	1.7
65–69	33,457	1.2
70–74	33,742	1.2

Source: Office for National Statistics, Census (2011)

Similarly, the median age of the Muslim population is 25 years as compared to the overall population's median age – 40 years (The Muslim Council of Britain, 2015). The increasing shift in the Muslim population, particularly with regard to the younger generation, appears

to have created an ideal customer base for Islamic banks, especially when the average age of a first-time buyer in the UK is 30 (Osborne 2016).

In addition, data gathered from the 2011 census also reveals that a much greater number of Muslims were living in privately rented accommodation – 30% as compared to 18% overall (see Table 2.8 below).

Table 2. 8 *Muslim Housing Tenure*

Type of Tenure	All Households	%	Muslim Households	%
Privately rented: landlord or letting agency	3,566,467	15.3	192,350	25.8
Privately rented: other privately rented or living rent-free	649,202	2.8	30,525	4.1

Source: Office for National Statistics, Census (2011)

Although it is not possible to estimate the precise share of the Islamic home finance market, the above data does indicate that the Muslim renting segment provides an excellent commercial opportunity for Islamic banks, further increasing the prospects for Islamic home finance in the overall UK home financing market.

2.6 Summary

This chapter reviewed the growth of Islamic finance in the world. In particular, the chapter mapped the history and phenomenal rise of Islamic finance from a banking and regulatory perspective, and further cemented UK's position as leading centre of Islamic finance outside the Muslim countries. In addition, there has been a detailed review of the various models of Islamic home finance practised in the UK and beyond. Further to this, the chapter has carried out a real-time cost comparison analysis between Islamic and conventional home finance. Contrary to widely held perception that Islamic home finance

is more expensive than conventional home finance (e.g., Hersi, 2009; Galadima, 2015; Tameme, 2009; Tamame and Asutay, 2012) the results derived from the mortgage cost comparison analysis tell us that Islamic home finance now has become a competitive product in the UK mortgage market. This finding along with the discovery of the changing socio-economic conditions and demographic landscape of the Muslim population over the years, and the government's ambition to promote Islamic finance, has presented an opportunity to explore the prospects for Islamic finance in the UK in the current context.

Chapter 3: Literature Review

3.1 Introduction

This chapter seeks to justify the proposed research by identifying the gaps in the existing literature. It firstly reviews the literature pertaining to Islamic banking and finance followed by critical analysis of the existing literature that is particularly related to Islamic home finance in the UK. The chapter concludes with summarising the shortcomings found in the existing literature and explains how this study attempts to address gaps found in the literature focussing on the field of Islamic home finance in the UK.

3.2 Existing Literature

Numerous studies have examined Islamic home finance in the UK from a range of different perspectives, employing different approaches and arriving at different conclusions. The review of the academic literature in this chapter can be divided into two categories: Islamic finance and banking and Islamic home finance. Studies focusing on Islamic finance and banking take a broader view and indirectly touch upon home financing, whereas the latter category exclusively focuses on home financing. The following sections critically evaluate the existing literature, starting with research on Islamic finance and banking, and then specifically examining Islamic home finance in the UK.

3.2.1 Research on Islamic Finance and Islamic Banking

In the last two decades, a number of studies have attempted to examine Islamic finance from different viewpoints, such as performance and development, efficiency and general

perception. The literature on modern Islamic finance now extends to many Muslim and non-Muslim countries around the world. Although the focus of this research is the UK market, it is necessary to briefly highlight some of the key studies that focused on other countries in order to provide a broader picture, before critically evaluating UK-focused studies in detail.

Recently, Abdullah (2016) conducted a study focusing on the USA, whilst Al-Zumai and Al-Wasmi (2016), Riaz, Khan and Khan (2017), Furqani and Mulyany (2009) concentrated on the Middle East and North Africa, Pakistan and Malaysia respectively. All of these studies portrayed a positive image of Islamic finance. For example, Abdullah (2016), who examined three Islamic financial products in the USA, found that each product involves a risk-free transaction and interest, whilst Al-Zumai and Al-Wasmi (2016) declared that Islamic finance was fast becoming a mainstream industry in the Middle East and North Africa. Riaz, Khan and Khan (2017) reported that overall consumer perceptions of Islamic finance were positive in Pakistan, and that Islamic finance was becoming a significant force in the country's economy. Furqani and Mulyany's (2009) study also share similar views regarding Malaysia, concluding that Islamic finance was positively and considerably associated with Malaysia's economic development and wealth accumulation.

A number of other studies also focused on the Malaysian market, with particular reference to Islamic home finance. For example, Amin (2008) reviewed the selection criteria for Islamic home finance and suggested that Sharia'h principles, low periodic payments, transparent practices, and interest-free and 100% finance facilities were the key reasons for choosing this type of finance. Similarly, a study conducted by Abdul-Razak and Abduh

(2012) examined customers' attitudes to *bay bi'thaman ajil*[3] and the diminishing partnership, and concluded that they perceived diminishing *musharakah* to be more Sharia'h-compliant than the *bi'thaman ajil* mode of Islamic home finance. Moreover, with regard to Malaysian Islamic banks, H. Amin, et al., (2014) examined the factors influencing their clients' acceptance of Islamic mortgage products. The study found that, when determining Islamic mortgages, occupation, marital status, religion and ethnicity were more instrumental factors than gender, education and monthly earnings. In the same vein, studies conducted by H. Amin, (2016; 2017) further suggested that religiousness, Sharia'h debt principles and perceived *maqasid*[4] on home ownership were instrumental in the adoption of Islamic home purchase financing in the Malaysian context.

In another part of the world, Kaakeh, et al., (2018) attempted to gauge the prospects of Islamic finance in Spain, whereas Masiukiewic (2017) looked at the wider picture by focusing on the whole of Europe. The findings of these two studies were contrary to the aforementioned research, with the researchers citing issues of awareness, low demand from the Muslim diaspora in Europe, and the incompatibly of legal regulations in non-Muslim countries as the main barriers to the development of Islamic finance on the European continent.

Returning to the British Isles, one of the key works on Islamic finance in the UK was a conceptual study conducted by Hersi (2009). This study sought to analyse the financial

[3] *Bay bi'thaman ajil* is a deferred payment sale identical to the Murabaha contract. Under this type of contract, an Islamic bank makes a purchase based on a client's request and then sells the asset back to the client at an agreed price, which will include the bank's mark-up profit.

[4] *Maqasid* refers to the aims, objectives, intents, goals or purposes that are intended to create harmony with others to enhance social welfare.

inclusion of less affluent Muslims in the UK before and after Sharia'h-compliant finance was introduced. The research discovered that although UK Muslims prefer Islamic finance to conventional banking, there was deep scepticism about the authenticity of Sharia'h products, as well as their affordability, which was a real cause for concern for less affluent British Muslims. The study attracted criticism regarding the breadth and impartiality of the findings due to the limited sample of only three interviewees representing Islamic banks. A further criticism is that the study lacked diversity and used an unbalanced sample distribution, as the majority of the participants (62% – 159 out of 255) were of Somali origin and more than half of the respondents (51% of the total sample) were unemployed, again with the majority being of Somali origin. These limitations prevented the findings from being more strongly associated with the wider Muslim community.

A subsequent study carried out by Masood, et al., (2009b) addressed Hersi's (2009) sampling issue and attempted to assess the degree of customer satisfaction with Islamic finance and the extent to which UK Muslims and non-Muslims were aware of the products and services on offer at Islamic banks. By randomly collecting primary data from 200 Islamic bank customers, the study found that bank service charges were the most critical factor for customers when selecting a bank, followed by the bank's reputation, recommendations from friends and religious affiliation. It is interesting to note that Islamic bank customers indicated religious affiliation to be of only low importance when selecting a bank while low service charges were the most important factor. Unfortunately, bearing these preferences in mind, the study failed to explain what led Muslim customers to choose Islamic banks.

Inspired by Masood, et el., (2009b), Mansour, et al., (2010) also attempted to explore the decision-making process implemented by UK customers by analysing a sample of 156 respondents comprising both Muslim and non-Muslim bank customers. By partly using the questionnaire employed by Masood et al., (2009b), the study endeavoured to discover what criteria customers used when selecting a bank. Consistent with the findings presented by Masood et al., (2009b), the study claimed that the respondents' foremost concern was low service charges, irrespective of their religious orientation, whereas product uniqueness was one of the least required options. It is unclear from this study whether their claims, particularly with regard to the low preference for product uniqueness, applied to home finance as product uniqueness (i.e., term duration, survey fee, arrangement/booking fee, interest/rent rate, early redemption charges and approval criteria etc.) usually plays a crucial role in one's decision-making process, especially when it comes to home finance.

In 2011, Memon and Kamla explored the ethicality of Islamic finance particularly from non-Muslims perspectives. Based on interviews from fifteen non-Muslims conventional bank customers, the study concluded that Islamic finance has the ability to attract non-Muslims and cash poor customers neglected by conventional banks. Whilst the study's claim is interesting, the findings can be further strengthened by involving more participants.

A year later, Khan (2012) went a step further and, by using a mixed methods approach (a survey and interviews), examined the perception and awareness of Islamic finance in the UK from a non-Muslim perspective. The findings of the customer survey overwhelmingly demonstrated that non-Muslims had a very positive attitude towards

Islamic financial services. However, these findings were somewhat affected by the lack of critical question(s) asked of the participants, especially with regard to the cost factors. Similarly, the study included only two interviewees from the banking sector, so it therefore fell short in terms of providing wide-ranging professional insights.

Following the footsteps of Mansour et al., (2010), Akbar, Shah and Kalmadi (2012) evaluated user perceptions of Islamic banking practices in the UK. They came to the conclusion that Islamic banking and finance was not yet fully aligned with the paradigm version of Islamic finance. Their research had a structural limitation relating to the small sample of 35 respondents, restricting its scientific validity and generalisability. Another weakness which further affected the credibility of the findings was that it assumed that the participants had some background knowledge of Islamic finance. In addition, the classification of the sample also raised questions concerning the suitability of the participants to justify their answers to the main research question. For example, 54.3% of the respondents (18 out of 35) had an income of less than £12,000 per annum. Evidently, it is reasonable to believe that such participants are not financially mature in the field of Islamic finance, particularly Islamic home finance. This may have further compromised the quality and credibility of the collected data. Therefore, it could be argued that the results of this study were assumptive and the study's claim that Sharia'h finance in the UK was not yet wholly aligned with the standard model of Islamic finance was rather inconclusive.

In contrast to Akbar, Shah and Kalmadi (2012), Rehman (2012) evaluated customers' perceptions of the service quality of Islamic banks in the UK, Pakistan and the United Arab Emirates. By employing a CARTER service model and a sample of 225 customers

(75 from each country), the study concluded that the majority of the respondents from the UK, Pakistan and the UAE were satisfied with the existing banking service provided. While these findings may be valid, the small sample size from each country restricted the generalisation of the claims.

Riaz (2014) also critically examined the perceptions, experiences and expectations of British-based Muslims regarding Islamic banking and finance. Unlike the other studies mentioned above, such as Akbar, Shah and Kalmadi (2012) and Kamla and Memon (2011), which focused on Muslim and non-Muslim customers, Riaz (2014) employed a sample of 25 Muslims, including Islamic scholars from UK mosques and employees within British branches of Islamic banks around the UK, in order to ascertain their views and the factors contributing towards the growth (or lack thereof) of Islamic financial services in the UK. The study adopted a mixed methods research approach by conducting 25 interviews with Muslim participants from a diverse set of backgrounds across the country and also by surveying a sample of 60 Islamic scholars and 38 Islamic bank employees. The interviews revealed that the majority of the participants were unhappy or dissatisfied with Islamic banking products for reasons associated with a lack of accessibility, affordability and awareness. The research also claimed to have found that the existing Islamic banking and finance products and services in the UK did not truly reflect the real essence of the principles of social justice and equality. However, such claims may limit the general findings bearing in mind that the surveyed Islamic scholars and mosque imams were more likely to have been religiously motivated and may have lacked knowledge of contemporary (Islamic) finance. Furthermore, the results of the interviews and survey did not tally with one another, thereby limiting any systematic generalisations.

By contrast, Hussain (2014) evaluated the performance and potential of Islamic finance in the UK by combining the financial data of Islamic and conventional banks with primary data from surveys. The study undertook a comparative performance analysis of Islamic and conventional banks in the UK, particularly during the time of financial crises, and examined customers' attitudes towards Islamic finance. As the study analysed the performance data of Islamic and conventional banks of different sizes, the findings could be considered misleading. The survey findings from a sample of 223 Muslim and non-Muslim participants revealed that a bank's reputation, convenience and quality of services were the most decisive factors, followed by competitive interest rates (only for conventional banking). With particular reference to the findings on competitive rates, it appears that the study simply focused on general Islamic banking products and services such as current or deposit accounts as the importance of competitive interest (or profit) rates could not be downplayed in the case of home finance.

More recently, Riaz, Burton and Mont (2017) conducted a study by employing a diverse sample of Islamic banking employees, everyday Muslims and religious scholars. The study attempted to compare the participants' perception on the issue of accessibility of Islamic banking in the UK. By employing a mixed method approach, Riaz, Burton and Mont (2017) conducted 22 semi-structured interviews from everyday Muslims, a survey including 57 religious scholars and 38 Islamic banking employees. The findings of the study revealed that the UK-based Muslims and scholars unanimously agree with the issue of accessibility with Islamic finance, due to the lack of online banking facilities, branch network and complex terminology of Islamic banking products. In contrast, bankers' views appeared to be out of line with Muslim customers' and scholars' views on some accounts.

It was interesting to note that 25 out of 57 scholars indicated no bank account or dealing with Islamic banks. This raises a question whether this ratio is because they feel comfortable dealing with conventional banks or perhaps, they are sceptical about the authenticity of Islamic finance currently offered in the UK.

The study also questions the popularity of Islamic products in the UK from Islamic bankers. The results indicate that the bankers gave the highest level of favourability to *musharakah* followed by *murabahah* product, whereas in reality *murabaha* is no longer a widely used product in the UK, particularly in Islamic home financing.

3.2.2 Research on Islamic Home Finance

A number of studies have also specifically examined the development, demand and potential of Islamic home finance in the UK. One of the earliest studies in this regard is the study conducted by Matthews, Tlemsani and Siddiqui (2003) which attempted to gauge the market for Islamic home finance by primarily focusing on the UK market. The study concluded that the total overall market for Sharia'h-compliant home finance was more than £7 billion at the time of the research. However, these findings were purely based on data from the 2001 census without any substantiation from primary data. In addition, Matthews et al. (2003) argued that the demand for Sharia'h-compliant mortgages from ethically motivated non-Muslim customers could also be significantly high, although they did not provide any concrete, scientific evidence for this claim. Furthermore, the study compared *murabahah*-based mortgages which are no longer offered in the UK.

In contrast to the study conducted by Matthews et al. (2003), Dar (2004) produced a considerably wider-ranging paper and concluded that there was not a huge demand for Islamic home finance at that time and those who had shown an interest in Islamic home finance were deterred from proceeding by the higher costs. This study also provided evidence that there was only a 5% staunch demand for Islamic finance in the UK. Moreover, unlike Matthews et al. (2003) who claimed that demand from non-Muslim customers could also be significantly high, Dar (2004) disagreed and instead suggested that non-Muslims may be only marginally interested in Islamic home finance. Dar's (2004) study also estimated the size of the market for Islamic home finance based on the collected data set. The findings revealed that only 9% of the sample (45 respondents out of 503) showed a positive attitude towards Islamic home finance, with an average borrowing of £65,467 per household. The research assumed that if the sample was generalised to the UK Muslim population (1.8 million at the time of the study), then an estimated 45,000 households could demand Islamic home finance, thereby valuing the Islamic home finance market at approximately £3–4 billion less than Matthews et al. (2003). Nevertheless, Dar's (2004) estimate was compromised by the fact that the study included a considerable proportion of students (79 participants). This may have affected the sample's behaviour quite significantly, especially in relation to Islamic home finance, as students are not considered ideal participants to comply with home finance-related aspects. As discussed above, the study also claimed that non-Muslims may be marginally interested in Islamic finance. However, this assertion was not supported by any scientific evidence as the study only targeted common Muslims.

In comparison, Tameme (2009) conducted a study with a particular focus on the supply-and-demand conditions of Islamic home finance in the UK. By employing a survey technique, this research focused on Muslims from different ethnic backgrounds living in east London and their perception of Islamic home finance. Contrary to Dar's (2004) findings, Tameme (2009) suggested that broader social factors and lifestyle choices made by the Muslim community may have been increasing the demand for Islamic home finance products if they were priced at a similar or lower level than conventional home finance. Nevertheless, this study has been criticised for lacking diversity as it was based on a small geographical location where a significant proportion of the Muslim population was in a low socio-economic segment and could not afford to buy property due to prices being relatively high in east London (Masood & Bellalah, 2013). Agreeing with Masood and Bellalah (2013), research by M. Amin (2010a) claimed that a large number of the Muslims in the UK were too young to require banking services, while many others were too poor to be profitable customers for Islamic banks.

The arguments put forward by Masood and Bellalah (2013) and M. Amin (2010a) were somewhat visible in Tameme's (2009) study. For example, the primary data sourced by Tameme (2009) regarding income revealed that 38% of the respondents had an annual income of under £10,000 while 31.2% had an income of between £11,000 and £20,000. Based on these statistics, it was quite evident that property prices in east London were disproportionate to the respondents' income levels and were therefore not a profitable segment for Islamic banks. The study also collected data from a high proportion of respondents of Bangladeshi origin (81/32.4%), as opposed to Pakistani origin (17/6.8%) or Indian origin (11/4.4%). According to Census 2011 data, only 9% of the Bangladeshi

ethnic Muslims owned properties as opposed to 41% of Pakistani ethnic Muslims (The Muslim Council of Britain, 2015). This disproportion was due to the fact that the Pakistani community had settled all across the UK where property prices are lower while more than half of the Bangladeshi community had primarily settled in one of the expensive areas of London, Tower Hamlets (The Economist, 2015). As the study's data was mainly originated from the Muslim community in east London, particularly the Bangladeshi community living in Tower Hamlets, its claim that home ownership in the UK among British Muslims was less prevalent when compared with average ownership rates among the general public was perhaps limited to London and not capable of being generalised to the whole country.

In the same year, Masood, et al., (2009a) studied the role of Islamic mortgages in the UK. One of the main focuses of their secondary research was to draw a cost comparison based on a £100,000 property price with a 10% deposit and £90,000 finance over 360 monthly payments. The study concluded that the Islamic home finance was £6,000 or 4.1% cheaper than a conventional mortgage. Although this study provided some interesting results, it was based on a hypothetical home finance comparison rather than any actual home finance deal on offer at the time, thus reflecting an incomplete picture of reality. Moreover, the study discussed the structure of Islamic home financing in the UK including *murabaha* and *ijara-based contracts*, neither of which are freely offered in the UK today, especially *murabaha*-based home financing.

Zakariyah (2012) adopted an unconventional approach to review the Sharia'h authenticity of Islamic home finance products in the UK under the legal maxims of Islamic law. This research scrutinised the three major Islamic home products – *murabahah*, *ijarah* and

musharakah mutanaqisah[5] – in light of Sharia'h law. One of the weaknesses of the study was that it was purely based on a personal review of Islamic home finance products and the claims made lacked any support from religious scholars or industry experts.

Masood and Bellalah (2013) study somewhat attempted to fill the gap left by Zakariyah's (2012) study by including banking professionals (a sample of 190) and assessing their views and expectations regarding the types of mortgage system they would prefer. A survey was utilised for this purpose with a simple Likert scale questionnaire consisting of only six questions. This strategy restricted the depth of the findings and limited the supply of comprehensive views, particularly on the prospects of Islamic home finance in the UK. Moreover, as banking experts do not necessarily have expertise in the field of Islamic home finance, their views cannot be considered to be the practical views of those in the industry (such as home finance experts), as claimed by the study.

A year after, Ahmad (2014) carried out cross-product cost analysis of Islamic home finance products offered in the UK. Unlike the study conducted by Masood et al., (2009a) where a hypothetical cost analysis of an Islamic home finance product was performed, Ahmad (2014) compared three real-world home finance products offered by HSBC Amanah, Ahli United Bank and Alburaq Bank. Nevertheless, the study has multiple limitations. Most notably, it did not compare like-for-like products and the comparisons were based on a single product from each financial institution. Furthermore, there was no comparison made between Islamic home financing products and conventional mortgages to determine how they differ from one another in terms of overall cost. In addition, the

[5] *Musharakah mutanaqisah* is similar to diminishing partnership concept.

mortgage data taken from HSBC Amanah and Alburaq Bank is no longer relevant as both banks stopped offering Islamic home financing in 2012. Last but not least, Ahmed's (2014) study did not analyse any products offered from the first fully fledged Sharia'h-compliant retail Islamic bank: Islamic Bank of Britain (presently known as Al Rayan Bank).

In 2015, Galadima (2015) attempted to trace the motives of the protagonists in establishing an Islamic home finance market and the various steps that were taken to actualise it. This study employed a multi-method approach: semi-structured interviews, a questionnaire survey and a focus group. Following Tameme's (2009) survey strategy, Galadima (2015) also conducted his survey in east London, making an assumption that the participants would most likely be aware of Islamic home finance. However, contrary to this assumption, the findings from the sample of 188 participants demonstrated disproportionate poor income (70.5% below 10K) and education levels (the majority [72%] had GCSE qualifications, 21.8% had A-Levels and only 4.6% had a degree). In light of the sample distribution, a question arose in terms of the participants' awareness of the factors affecting the developmental trajectory of Islamic home finance in the UK. The study also gauged their awareness or preference for the Islamic home finance products *ijara* and *murabaha* and concluded that there was general ignorance about these contracts among the participants. Interestingly, these products are rarely offered in the UK, so this ignorance may be attributed to their lack of availability on a wider level. Galadima (2015) also conducted 20 semi-structured interviews and 6 focus groups with people from a range of industry backgrounds (aviation, oil and gas, medicine, law, marketing, commercial banking, and IT to name but a few). However, apart from two

financial advisors, the majority of the participants had little knowledge of Islamic home finance, so the study lacked practical industry-driven perspectives.

One year later, Yusof, Bahlous and Haniffa (2016) carried out a study to formulate a mortgage pricing index for Islamic banks as an alternative to using the conventional benchmarking rate in the UK. The authors suggested that Islamic banks in the UK should consider incorporating the proposed Islamic rental rate index (RR-I), which they derived by measuring the ratio of the rental price index (RPI) to the UK house price index (HPI). The proposed model's principal fundamental issue concerns the UK house price index, which has been criticised for being untimely (Acadata, 2016) as it is based on the transaction data at the end of the property conveyance process. Therefore, the use of price paid data at the end of the property transaction is considered to be unsatisfactory in terms of calculating a timely inflationary index for house prices. Furthermore, house price indices are based on speculation and hence give rise to uncertainty, two characteristics which are prohibited in Islamic finance. This may lead to the proposed model being rejected by the Sharia'h board due to its contradiction of the basic principles of Islamic finance.

More recently, Alissa (2018) carried out a comparative study to improve the legal and financial system of mortgages in Saudi Arabia, with a regulatory analysis of the US and the UK, and case analyses taken from the UK, Sharjah, Dubai and Saudi Arabia. However, as far as the regulatory and case analysis of Islamic home finance in the UK is concerned, the study overlooked diminishing musharakah, the existing and most commonly offered home financing product. Instead, the study highlighted issues concerning *Murabaha* contracts which are rarely or no longer offered on the UK market.

In addition, contrary to one of the stated goals of the research – “regulatory analysis of UK mortgages” – the study focused on Islamic finance and other Islamic finance products (namely, deposit and savings accounts). Finally, the study lacks any empirical support to substantiate its findings.

More recently, Benamraoui et al. (2020) investigated the challenges that the UK’s Islamic retail banking is currently facing both from the regulatory and non-regulatory standpoints. Although, the study attempted to investigate the issues in relation to various retail banking services, most of the issues investigated in the study implicitly appeared to be closely associated with Islamic home financing. The study carried out semi-structured interviews from four participants: an Islamic bank manager, a representative from Financial Conduct Authority and two representatives of Muslim community. While the study has been conducted very recently, its claim that Lloyds Bank and other major conventional banks are still offering Islamic financial service to UK customer is questionable as Lloyds and other conventional banks such as HSBC ceased offering Islamic financial products in 2010 and 2012 respectively. The study further attracts criticism with regard to the breadth and impartiality of the findings as well as its sample size of only four interviewees.

All the key UK-based studies discussed above are tabulated in Appendix A which presents details of the time period, sample size, type of participants, data collection methods and data analysis techniques applied by the above-mentioned studies. The shortcomings of the existing literature are also summarised in the following section, setting out a basis for the need of this study, explaining how this study differs from

previous studies and how it attempts to address the gaps found in the existing literature in the context of Islamic home finance in the UK.

3.2.3 Summary of Research Gaps

The findings from the above-mentioned studies in the field of Islamic finance in the UK lead to the conclusion that the vast majority of studies (e.g., Akbar et al., 2012; Galadima, 2015; Tameme, 2009; Tameme & Asutay, 2012) focused on an ill-conceived customer-oriented segment (i.e., low income and education bracket) with an assumption that the participants had some background knowledge of Islamic finance or potential customers of Islamic (home) finance. Conclusively, the results obtained from these studies or sampling frame are assumptive rather than conclusive, raising a question about the credibility of the findings. Other studies shifted the focus from average Muslim customers to Muslim employees of conventional banks (e.g., Hersi, 2009; Masood & Bellalah, 2013) or to religious scholars (e.g., Riaz, 2014), but still the findings derived from these studies are limited to one-sided or religious perspectives and do not completely portray independent and up-to-date industry-led expert views. As a result, the generalisability of these findings is undermined.

In addition, others (e.g., Hussain, 2014; Khan, 2012; Mansour et al., 2010; Rehman, 2012) adopted a one-size-fits-all approach focusing on an overall picture of Islamic finance without real emphasis on Islamic home finance. The studies which did concentrate on Islamic home finance (e.g., Dar, 2004; Matthews et al., 2003; Masood, et.al., 2009a; Tameme, 2009) have essentially become old-fashioned due to the changes

in the demographic landscape of the Muslim population and the financial environment over this period.

Therefore, with the advent of new entrants and the government's efforts to bring Islamic banks into the mainstream market, the originality of these studies in the current context has actually elapsed and requires reassessment. This leaves a huge gap in this field, particularly in terms of Islamic home finance. Therefore, this study has been initiated in order to address this void.

Unlike the majority of the previous studies into the current state of Islamic finance which were narrowly confined to customers, bank employees or scholars, this research shifts the focus and involves independent home finance experts. In this way, it can obtain the most current, first-hand and industry-driven perspectives not only on Islamic home finance in general, but also on its future prospects in particular.

Moreover, whilst the earlier studies were restricted to one particular Muslim community, small geographical location or low socio-economically active participants, this study overcomes these weaknesses by involving qualified FCA-approved mortgage consultants who not only possess specialised knowledge of the conventional and Islamic home finance markets, but who are also considered to be financially seasoned participants. Moreover, due to the service-oriented nature of their profession dealing with a broad-based clientele, these experts will provide a better overall picture of the prospects of Islamic home finance in the UK.

Further to this, as evidenced by the literature review, much of the existing research on Islamic home finance (e.g., Dar, 2004; Hersi, 2009; Riaz, 2014; Tameme, 2009; Tameme

& Asutay, 2012) has been over-reliant on a Muslim perspective, resulting in one-sided religious viewpoints and failing to fully incorporate non-Muslim and industry-led perspectives, thus portraying an incomplete picture of the research area. Therefore, one of the objectives of this research is to address the homogeneity and religious bias found in the existing literature. Accordingly, this study consults Muslim and non-Muslim mortgage brokers to explore the moderating influence of religion on the prospects for Islamic home finance in the UK.

Similarly, it is important to consider the advent of new entrants and government efforts to bring Islamic banks into the mainstream market, as well as changes to the Muslim demographic and variability in the financial environment over the last decade (e.g., the sub-prime mortgage crisis). With this in mind, this study takes account of the impact of these events through the lens of mortgage brokers' lived experience to assess whether the past episodes, and the transformation of Islamic home finance over the years, has had any significant effect on their views regarding its long-term prospects in the UK.

Last but not least, contrary to the majority of the existing research that lacks a theoretical framework and relies on first-generation statistical procedures (i.e., descriptive analysis, linear regression and ANOVA), this research moves one step beyond the theoretical and methodological perspectives. Theoretically, this study firstly develops a robust research model to underpin the various factors (constructs) expected to affect the prospects for Islamic home finance in the UK. It then applies a second-generation multivariate statistical procedure – partial least squares structural equation modelling (PLS-SEM) – to estimate the interrelationships between the proposed constructs simultaneously to predict the prospects for Islamic home finance in the UK. In addition to the PLS-SEM analysis, this

research further performs an advanced and much-needed procedure: importance-performance map analysis (IPMA). The results of this analysis will identify the high-priority development areas which can potentially help Islamic banks improve their decision-making, marketing strategies and policymaking. These steps also address the methodological gaps in the literature as PLS-SEM has rarely been used in Islamic finance, particularly in the context of the UK.

3.3 Summary

This chapter carried out a comprehensive review of the existing literature pertaining to Islamic finance in general and Islamic home finance in the UK in particular. The first part of the chapter broadly reviewed the literature on modern Islamic finance around the world, including Muslims and non-Muslim countries. Following this, the chapter chronologically reviewed UK-based studies specifically related to Islamic home finance that has been carried out over the last two decades.

The review of literature has revealed multiple gaps in the existing research which prompted this research. The outcome of the literature review has led to the conclusion that, to date, studies either narrowly focused on an ill-conceived customer-oriented segment (e.g., Galadima, 2015; Tameme, 2009; Tameme & Asutay, 2012) or banking employees (e.g., Hersi, 2009; Masood & Bellalah, 2013) or religious scholars (e.g., Riaz, 2014) or those who adopted a one-size-fits-all approach (e.g., Akbar, et al., 2012; Hussain, 2014; Khan, 2012; Mansour et al., 2010; Rehman, 2012) without real emphasis on Islamic home finance. The chapter has also revealed the lack of industry-driven and non-Muslim's views on the future prospects for Islamic home finance in the UK. These

gaps in the literature have provided a solid justification for the initiation of this study. The subsequent chapters will discuss how these prevailing oversights will be addressed.

Chapter 4: Research Design

4.1 Introduction

This chapter discusses the research approach and research strategy that will be utilised to achieve the objectives of this study. The chapter also contains a comprehensive discussion about the sampling strategy, sample size, the use of instruments and the participants from whom information will be solicited to fulfil the key aim of the research.

4.2 Research Approach

The research approach provides a logic, plan and set of procedures for research (Blaikie & Priest, 2019; Creswell, 2021). There are three distinct approaches to research: induction, deduction, and abduction (Chong, 1994; Saunders et al., 2015). A commonly held view regarding the distinction between these approaches is that deduction starts with a theory, hypothesis, or model, which is often developed from the academic literature and then subjected to empirical scrutiny (Bryman, 2015; Ghauri & Grønhaug, 2005). induction research hopes to gear towards a phenomenon of interest on its own terms and to let the theory ‘emerge’ from the data (Palys, 2003), while abduction proceeds with observing the ‘surprising facts’ or ‘puzzles’ and rather than operating from theory towards data (deduction) or from specific observations to general theory (induction), an abduction approach moves back and forth, essentially mixing deduction and induction to explain or elaborate on those surprising facts or puzzles (Dudovskiy, 2018; Saunders et al., 2015).

In short, abduction creates or elaborates, deduction explicates, and induction evaluates (Ketokivi & Choi, 2014; Råholm, 2010). The fundamental differences between deduction, induction, and abduction are summarised in Table 4.1.

Table 4. 1 *Deduction, Induction, and Abduction: from Reason to Research*

	Deduction	**Induction**	**Abduction**
Logic	In deductive reasoning or informally, top-down logic, is the process based on when premises are true, then the conclusion is indeed true.	Inductive inference (bottom-up logic) is probabilistic; a general conclusion (hypothesis) is drawn based on specific observations (patterns).	In abductive reasoning known premises are used to produce best prediction or guess which may be true.
Generalisability	Generalising from the theory to the research findings.	Generalising from research findings to the general/theories.	Generalising from the interactions between the research findings and the general.
Use of data	Primarily quantitative data collection is utilised to evaluate theoretical propositions or hypotheses linking to an existing theory.	Primarily qualitative data is used to explore a social phenomenon, identify themes and trends, and create a conceptual framework.	Quantitative and qualitative data form is used to explore a social phenomenon, identify trends and patterns, locate identified themes in a conceptual framework and test this via subsequent data, and so forth.
Theory	Theory verification or falsification.	Theory generation and building.	Theory building or modification of existing theory; incorporating existing theories, where appropriate.

Sources: Bryman and Bell (2015); Mark (2017); Saunders et al. (2015); Tsang and Williams (2012)

The research approach used in this study can be best classified as deductive since it develops a theoretical model mainly derived from scholarly literature and tests the hypothesised relationships of the research model empirically, via survey research methods.

4.3 Research Strategy

The research strategy is almost certainly the most important aspect of research design (Saunders et al., 2015). The adaptation of the relevant strategy is directed by the research question, objectives and availability of resources. In accordance with the development of

this research, a survey is utilised. This method is particularly suitable when a study follows a deductive approach and attempts to test the theoretical model and hypotheses (Forza, 2009), as is the case in this current study.

Although surveys are well suited to descriptive studies, they are equally suitable when a study seeks an explanation or provides data for testing hypotheses (Kelley, et al., 2003). More importantly, the survey approach is often linked with the deductive research approach, conforming to the specification of scientific research (de Leeuw, Hox, & Dillman, 2008). Besides these characteristics, a survey provides comparisons in terms of how one group differs from another (Sapsford, 2006), it describes, compares, or explains knowledge, attitudes, behaviour (Ellul, 2008; Fink, 2002; Gfeller et al., 2015), attitudes and opinions (Converse, 2011; Kasunic, 2005; Medoff & Kaye, 2013) and preferences, beliefs (including predictions and assessments of importance), or facts (Weisberg, Krosnick, & Bowen, 1996) between individuals and groups. More importantly, data collected through a quantitative survey method can be further utilised to uncover potential reasons for specific relationships between variables and to develop models of these relationships (Saunders et al., 2015), which is the focal point of this research.

A survey research strategy is often used in cross-sectional, time-horizon research and is positioned at the fifth layer of the research 'onion'. Time horizons pertain to whether the study is a snapshot taken at a particular time (cross-sectional), or longitudinal involving a sequence of measurements recorded over an extended period, which can often be years or decades (Caruana, et al., 2015). Due to cost and time constraints related to most academic orientated research, longitudinal studies are rare, particularly in social research (Bryman, 2015).

As this study collects data from a ‘slice’ of a population by obtaining the views of the proposed participants at a particular time, it is naturally classified as a snapshot or cross-sectional study. Although longitudinal studies are more appealing in some cases especially when data is collected over time) such studies often have numerous problems, for example, the incomplete and interrupted follow-up of individuals, causing confusion due to intervening events and a drop-out of participants due to their lack of interest over a prolonged period of time (Caruana et al., 2015). Nevertheless, to maximise the validity of either approach, a mixture of solid theoretical foundations, a carefully planned survey, and suitable statistical tools are recommended (Rindfleisch et al., 2008). Therefore, close attention is paid to these aspects throughout the survey design process as well as to the appropriate statistical tools being applied.

Initially, it was presumed that designing the survey would be a relatively simple task. Perhaps this is the case in certain circumstances, especially when scales are readily available to measure the constructs under investigation; however, since this study involves the complexity of developing and measuring new constructs, it was an unimaginably daunting and time-consuming endeavour. This is possibly one of the key reasons why studies commonly avoid developing new scales and rely on adapting an existing scale to expedite the research process. The steps involved in this study’s overall comprehensive survey strategy – from identifying the research objective to measuring the scale validity – are discussed below.

Stage (1) 4.3.1: Identify the research objective

Stage (2) 4.3.2: Identify and characterise the target audience

Stage (3) 4.3.3: Design sampling plan

Stage (4) 4.3.4: Develop measurement scale

Stage 4.3.4(a) Identify and define constructs (develop theoretical framework)

Stage 4.3.4 (b): Generate questions

Stage 4.3.4 (c): Generate rating scales

Stage 4.3.4 (d): Evaluate content validity

Stage 4.3.4 (e): Prepare questionnaire

Stage 4.3.4 (f): Pre-testing

Stage 4.3.4 (g): Data collection and examination

Stage 4.3.4 (h): Evaluate scale reliability

Stage 4.3.4 (i): Evaluate scale validity

4.3.1 (Stage 1) Identification of the research objective

The objective of this research is identified as: "*To develop a conceptual framework to assess the prospects for Islamic home finance in the UK from the perspective of independent mortgage brokers*."

4.3.2 (Stage 2) Identification and characterisation of the target audience

Having considered the above-mentioned objective, the survey is aimed at experienced FCA regulated financial experts (mortgage brokers) as they are considered to be ideal participants for this study due to their homogeneous and specialist knowledge of Islamic and conventional home finance.

4.3.3 (Stage 3) Designing sampling plan

This phase plays an important role as it can significantly influence the research findings. Designing a minimum sample size estimation in PLS-SEM is a fundamental issue (Kock & Hadaya, 2018). In any scientific test, the results derived from a significantly large sample size can affect the findings, whereas outcomes derived from too small a sample may not be valid or scientifically accepted (Lani, 2009). Therefore, in order to make valid conclusions it is important to establish a well-balanced sample plan. Accordingly, to generate a reasonably acceptable sample size for this study, the first step is to examine the sample sizes used by some prominent studies in the related subject area (see Table 4.2).

Table 4. 2 *Sample Sizes of Various Studies*

Author(s)	Sample size	Participants
Dar (2004)	500	Muslims*
Tameme (2009)	250	Muslims*
Khan (2012) *	120	Non-Muslims*
Masood and Bellalah (2013)	200	Banking professionals
Hersi (2009)	262	Muslims*; Islamic bank employees; academia; executives of a Muslim organisation
Mansour et al. (2010)	156	Muslims and non-Muslims*
Akbar, Shah and Kalmadi (2012)	35	Muslims*
Rehman (2012)	225	Muslims*
Riaz (2014)	123	Muslims*; Islamic scholars; Islamic bank employees
Galadima (2015)	188	Muslims*
Hussain (2015)	233	Muslim and non-Muslim customers of Islamic and conventional banks

* Not necessarily Islamic banks or Islamic home finance customers

As highlighted by the table above, the sample size ranges from 35 to 500. In addition, the majority of the studies (e.g., Akbar et al., 2012; Dar, 2004; Galadima, 2015; Khan, 2012;

Rehman, 2012; Tameme, 2009) used average Muslim and non-Muslim participants. Therefore, in these investigations, time constraints and a limited budget may not have been primary concerns. In addition, their respective participants were considered to be readily accessible. In contrast, the current study uses specific professional participants and therefore economic, human resource, and time constraints all have to be taken into account.

It is a commonly held perception that a larger sample size is always better. However, the concept of 'the bigger the better' can cause problems to research in many ways, such as offering poor data quality (Ryan, 2013) and over estimation of the conclusions. According to Chin and Newsted (1999), a sample as low as 50 participants is considered appropriate for a PLS-SEM based study, while other studies have introduced various rules of thumbs in respect of calculating a sample size based on the number of items or indicators and latent constructs. For example, Bentler and Chou (1987) recommends a ratio as low as 5 observations per indicator when calculating an adequate sample size. In contrast, Barclay, Higgins and Thompson's (1995) widely used 10-times rule suggests that a sample size should be equal or greater than 10 times the maximum number of arrows pointing to a particular latent construct in the structural model. Applying the 10-times rule to this study's model, the required minimum sample size turns out to be 60, as the largest number of structural paths pointed at any variable in the model is 6. As there are two separate groups in the study and the minimum sample size is reported as 60, the overall total sample required for this study is a minimum 120 (60 X 2).

Although the 10-times rule is simple to use, it can lead to inaccurate estimates as it is not dependent on the magnitude of the path coefficients (Goodhue, Lewis, & Thompson,

2012; Kock & Hadaya, 2018). As an alternative to the 10-times rule, Hair, et al., (2017) suggests that the researcher should follow a more elaborate sample-size determination with, for example, recommendations proposed by Cohen (1988; 1992), considering statistical power, the R^2 value, and the number of predictors in the model. Cohen (1992) recommends calculating minimum sample-size requirements based on R^2 values, significance level, statistical power, and a specific level of complexity in the path model (i.e., the maximum number of arrows pointing at a construct in the path model), as shown in Table 4.3

Table 4. 3 *Sample Size Recommendations for a Statistical Power of 80%*

Maximum Number of Arrows Pointing at a construct	Significance Level											
	1%				5%				10%			
	Maximum R^2				Maximum R^2				Maximum R^2			
	0.10	0.25	0.50	0.75	0.10	0.25	0.50	0.75	0.10	0.25	0.50	0.75
2	158	75	47	38	110	52	33	26	88	41	26	21
3	176	84	53	42	124	59	38	30	100	48	30	25
4	191	91	58	46	137	65	42	33	111	53	34	27
5	205	98	62	50	147	70	45	36	120	58	37	30
6	217	103	66	53	157	75	48	39	128	62	40	32
7	228	109	69	56	166	80	51	41	136	66	42	35
8	238	114	73	59	174	84	54	44	143	69	45	37
9	247	119	76	62	181	88	57	46	150	73	47	39
10	256	123	79	64	189	91	59	48	156	76	49	41

Source: Cohen (1992)

In line with the above parameters, if we compute the minimum sample size of the proposed study based on the commonly used significance level of 5%, statistical power of 80% and R^2 value in the model - 0.35 and the maximum number of arrows (6), the required sample size for this study is a minimum of 54. It should be noted that there is no cell in the above table for the minimum R^2 value 0.35, but using linear interpolation R^2 of 0.35 corresponds to a sample of approximately 55. In addition, since this study compares two models, it is important that the number participants for each subgroup should meet

or be comparable to the sample size recommendations for a statistical power of 80% as per Cohen's (1992) recommendations. Keeping these guidelines in mind, a minimum sample size for each subgroup (i.e. Muslim and non-Muslim) is above 60, thus meeting Cohen's (1992) minimum sample size thresholds.

Although the R^2 method is frequently used for PLS-SEM estimation, it has been criticised for its lack of precise estimation (Kock & Hadaya, 2018). To counter this narrative, Hair, et al., (2018) proposed a new method to calculate a minimum sample size based on the effect size. Similar to the R^2 method, Hair et al., (2018) produced an easy to use table (Table 4.4) to determine a minimum sample size by using the desired or achieved effect size (f^2) significance level, power, and number of arrows pointing at a construct.

Table 4. 4 *Sample Size Recommendation in PLS-SEM using f^2 Method*

Maximum Number of Arrows Pointing at a construct	Significance Level (α = 5%)							
	Statistical Power 80% Effect Size (f^2)				Statistical Power 95% Effect Size (f^2)			
	0.05	0.1	0.15	0.2	0.05	0.1	0.15	0.2
2	159	81	55	42	262	132	89	67
3	159	81	55	42	262	132	89	67
4	159	81	55	42	262	132	89	68
5	159	81	55	42	262	132	89	68
6	159	81	55	42	262	132	89	68
7	159	81	55	42	262	132	89	68
8	160	81	55	42	262	133	89	68
9	160	81	55	42	262	133	89	68
10	160	81	55	42	262	133	89	68
20	160	82	56	43	262	133	90	68
50	160	84	63	57	263	134	92	72

Source: Hair et al., (2018); Kock and Hadaya (2018)

By linking the above guidelines to the study's model (maximum six arrows pointing at the key construct and medium effect size 0.15), the minimum sample size appears to be the same as the R^2 minimum sample size threshold of 55 participants per group with an overall sample of minimum 120.

Aside from the above scholarly sample-size recommendations, a minimum sample size requirement for the study is also determined by using the G*Power statistical software. After having submitted the input parameters (i.e., a 5% significance level, an actual effect size of 0.24, and statistical power of 80% along with four predictors), the generated output provided by G* also suggested a required sample size for this study of 55 (per group), as shown in Figure 4.1.

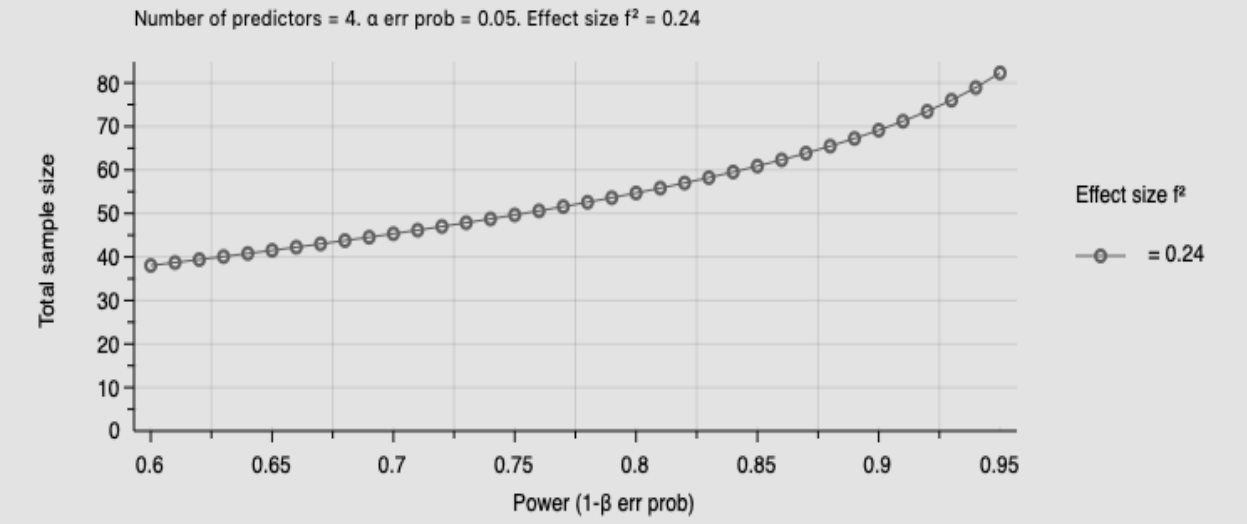

Figure 4.1 *Sample Size Calculation with G*Power software*

The sample size estimation computed from all the above method is tabulated in Table 4.5. below:

Table 4. 5 *Different Sample Size Estimation Methods*

Method	Minimum required sample size
10-times rule	60
R^2	55
F^2	55
G-Power	55

In conclusion, having reviewed all the above recommendations, and taking human, time, and financial constraints into account, it is believed that an overall sample size of 144 participants (a minimum 60 in each group) is sufficient for the purpose of this study.

In terms of a **sampling strategy**, this study uses non-probability, purposive sampling. Although probability sampling should be employed where possible as it provides more measurable precision (Sharma, 2005), in the current study this does not seem to be a feasible option. Firstly, with probability sampling, a sampling frame is essential and without one this method cannot be pursued. If a suitable sampling frame is unavailable, it is sometimes possible to create one based on existing databases (Saunders et al., 2015). However, this route has certain associated problems; for example, the individual databases are not always complete, or the information held about the organisation or individuals in the databases is sometimes inaccurate or out of date. These levels of inaccuracy are important in terms of the potential impact when designing a sample frame (Edwards et al., 2009). Therefore, it is vital to assume that the probability sampling frame is valid, otherwise non-probability sampling is recommended (McQuarrie, 2015). In addition, probability sampling is excessively costly, complex, and time-consuming (Macnee & McCabe, 2008).

As there is no suitable sampling frame available for the current field of study, and it is not possible to construct one due to a lack of resources, this research therefore uses a non-probability sampling technique. Generally speaking, non-probability sampling such as convenience, snowball, quota, and purposive sampling methods are often viewed as inferior alternatives to probability sampling techniques. However, the proposed study cannot simply be abandoned because it does not meet the probability criteria due to the lack of a sampling frame and because meeting such criteria is too costly and time-consuming. In this instance, non-probability sampling such as purposive sampling provides a viable solution to serve the purpose of this study.

The key ideas behind purposive sampling (also called judgement or expert sampling) are twofold. Firstly, expert sampling allows for a focus on the opinions or assessments of participants with particular knowledge (mortgage experts) as they are better able to assist in achieving the objective of the study. Secondly, expert sampling is particularly useful when there is a lack of empirical evidence from such participants in the chosen area of study (Etikan, Musa, & Alkassim, 2016). In fact, this discrepancy in the literature and the relevant field played a critical role in the initiation of this study.

As with any sampling techniques, expert sampling has its weaknesses, particularly when judgements about participant selection are ill-conceived or poorly considered. In order to alleviate the weaknesses, this study concentrated only on FCA-qualified (Financial Conduct Authority) experts and certified mortgage consultants.

In conclusion, it can be argued that an expert sample of a minimum of 140 qualified mortgage consultants is the most suitable strategy to be employed, as they ideally

complement this study due to their specialist knowledge of Islamic and conventional mortgages, making them informative for the purpose of this research.

4.3.4 (Stage 4) Scale development process

A scale development and validation process plays a critical role in building knowledge in the social and behavioural sciences (Boateng, et al., 2018; Morgado, et al., 2017). The requirement of developing a scale occurs when we want to measure phenomena that are believed to exist because of our theoretical understandings, but which cannot be measured directly (DeVellis, 2017). A comprehensive literature review provides the basis for understanding whether a new scale can be developed, or whether an existing scale can be used or refined (Farooq, 2016). In the context of the proposed research, no suitable scale exists that adequately measures the variable of interest. Therefore, this study has had to develop its own new scale.

There are various strategies used for scale construction, often described using different labels and terminologies for what are fairly similar approaches (Worthington & Whittaker, 2006). The following steps have been undertaken for developing a reliable and valid scale for this study. Each stage of the process is discussed in the following sections.

Stage 4.3.4 (a): Identify and define constructs (develop theoretical framework)

Stage 4.3.4 (b): Generate questions

Stage 4.3.4 (c): Generate rating scales

Stage 4.3.4 (d): Evaluate content validity

Stage 4.3.4 (e): Prepare questionnaire

Stage 4.3.4 (f): Pre-testing

Stage 4.3.4 (g): Data collection and examination

Stage 4.3.4 (h): Evaluate scale reliability

Stage 4.3.4 (i): Evaluate scale validity

4.3.4 (a): Identify and develop constructs

In scale development, the first step involves the identification and development of the construct in order to provide a sound conceptual foundation (Morgado et al., 2017). Due to the importance of this stage, a whole chapter (Chapter 5) has been dedicated to constructs development and examining how the relationship between the proposed constructs have been theorised and framed into a research framework. Nevertheless, the background of the identified and developed constructs is briefly mentioned below for reference purposes.

1. **Accessibility.** This construct refers to the extent to which Islamic home finance in the UK is readily accessible (and comprehensible) to potential clients. Six indicators measure this reflective measurement scale.

2. **Affordability.** This exogenous construct refers to the extent to which Islamic home finance is affordable or cost-effective for UK home finance customers. This reflective measurement scale is measured using four items.

3. **Extendibility.** This construct refers to the extent to which Islamic home finance is easily extendible to potential clients, and is measured using three items.

4. **Authenticity.** This exogenous construct refers to the extent to which Islamic home finance is perceived as *bona fide* and trustworthy. This reflective latent factor is

measured using three measures.

5. **Prospects** (for Islamic home finance in the UK). This is an endogenous latent construct and dependent variable. This construct refers to the extent to which there is a significant demand for Islamic home finance in the UK, and the overall future prospects for Islamic home finance. This construct is measured using four indicators.

4.3.4 (b) Item generation

After specifying the construct domain, the next step is to create items, questions, or statements to assess the construct under examination, since a construct or latent variable cannot be measured directly (Farooq, 2017). For example, in this study, 'authenticity' is a latent construct that cannot be measured directly. Therefore, in such cases, a pool of items in a questionnaire or a set of manifest observations are often used to measure the construct (Noar, 2003). In the current study, this stage involved producing a list of scale items (survey questions, statements or phrases) through a systematic literature review, interacting with key stakeholders, brainstorming, and carrying out content analysis of reports.

Moreover, the majority of the items were developed by taking cues from the relevant construct's operational definition, excerpts from interviews with the ten mortgage brokers, the existing literature, and brainstorming sessions with two experts on the subject. It was ensured that all the items were in close sync with the relevant construct's operational definition. After generating the items, the next step is to write them in a way that suits the purpose of the study. This is an important step, since it can have an impact on the

response rate as well as on the reliability and validity of the collected data (Saunders et al., 2015).

Therefore, it is recommended that the items are written in a way that is interesting and meaningful to the respondents (Walonick, 1993). In addition, it is equally important to keep the items concise, simple, clear, distinct, readable, unambiguous, straightforward, and to the point, with wording that lends itself to producing responses that can be scored meaningfully in relation to the construct definition and data analysis (Rea & Parker, 2005; Robertson, 2017; Worthington & Whittaker, 2006; Noar, 2003; DeVellis, 2012). Bearing these guidelines in mind, the items were written in short form where possible (without sacrificing clarity), and every effort was made to ensure that each item reflected the underlying construct being measured.

As regards the number of items required to measure each construct, it is suggested that few questions are asked, since this approach tends to produce better quality data (Robertson, 2017). It is usually good practice to have at least three good items for each construct, since this allows for a better estimation of validity and reliability (Worthington & Whittaker, 2006). However, quite often in research, certain problematic items can be identified which have to be deleted (Robinson, 2018). Therefore, an additional item is included – where practical. The final items and their corresponding constructs are shown in Table 4.6.

Table 4. 6 *Constructs and Corresponding Measurement Items*

	Accessibility
Item 1	Islamic home finance is conveniently accessible to potential clients
Item 2	There is now more awareness of the existence of Islamic home finance
Item 3	Islamic home finance products are easily understandable to the majority of potential clients
Item 4	The majority of potential clients are familiar with the concept of Islamic home finance
Item 5	The majority of potential clients have a basic knowledge of the underlying contract in Islamic home finance
Item 6	The majority of potential clients are aware of the overall terms and conditions of Islamic home finance
	Extendibility
Item 1	Islamic home finance has relatively lenient approval criteria
Item 2	It is easy for a potential client to secure Islamic home finance
Item 3	Islamic home finance involves simple procedures from start to finish
	Affordability
Item 1	Islamic home finance is affordable for the majority of customers
Item 2	Islamic home finance is comparatively inexpensive
Item 3	Islamic home finance requires a small initial deposit
Item 4	The arrangement fees for Islamic home finance are relatively low
	Authenticity
Item 1	Islamic home finance in the UK complies with Islamic jurisprudence
Item 2	Islamic home finance is genuinely a Shariah-compliant finance product
Item 3	Islamic home finance is a more ethical mode of finance
	Prospects (for Islamic home finance in the UK)
Item 1	There is a significant demand for Islamic home finance in the UK
Item 2	Islamic home finance is appealing to all faiths and beliefs
Item 3	The long-term prospects for Islamic home finance are good
Item 4	Islamic home finance is compatible with Western financial markets, such as the UK's

4.3.4 (c) Generate rating scales

All items that measure the constructs are measured using the Likert rating scale, since this is the most commonly used method for measuring the attitude of a respondent in survey research, particularly studies using structural equation modelling (Awang, Afthanorhan, & Mamat, 2016). One critical issue with the Likert rating scale is in setting the optimal number of response points in the survey (Robinson, 2018), since there is no consensus regarding the correct number of responses. Some researchers, for example Revilla, Saris and Krosnick (2014), claim that 5-point rating scales yield better validity than 7-point rating scales. In contrast, Preston and Coleman (2000) preferred the 7-point rating scale over the 5-point scale, and Malhotra, Krosnick and Thomas (2009) argued that the 7-point rating scale yields higher quality data than 5- and 9-point rating scales. Another related study, conducted by Weijters, Cabooter and Schillewaert (2010), recommended using rating scales that suit the nature of the participants' backgrounds. The authors suggested using 7-point rating scales (or higher) when surveying seasoned participants, since they were deemed to be able to comprehend the complexity of the additional responses, whereas 5-point rating scales were recommended for use with the general public. More recently, Awang et al. (2016) conducted a study to enlighten researchers on the real strengths of 5- and 10-point Likert scales using Structural Equation Modelling and the same data sets and models. The study confirmed that 10-point Likert scales yielded more success in establishing construct validity than 5-point Likert scales.

Following a review of the various claims, and considering the seasoned nature of the participants, this study utilised a 10-point Likert scale, with a range of 1–10 (1= strongly

disagree, 10= strongly agree), as recommended by Awang et al. (2016).

4.3.4 (d) Evaluate content validity

Having generated the suitable pool of items and decided on the Likert rating scale, the next step in the process is to have the items reviewed by people who are knowledgeable of the content area and of scale development (DeVellis, 2017). Content validity – also referred to as “definition validity,” “logical validity” or “theoretical analysis” (Morgado et al., 2017) – is a critical step in scale development (Beck, 1999), especially in the case of a new construct or scale, since it is a prerequisite for the validity and reliability of the scale (Zamanzadeh et al., 2015). Content validity ensures that the scale represents the most relevant and appropriate set of statements or items for the underlying construct being measured (Magasi et al., 2012). Given that it is not possible to statistically determine whether an item satisfactorily covers a content area (Mohajan, 2017), it is common practice to consult experts on the subject, as well as on scale development, regarding the validation of the items and their corresponding constructs.

This prerequisite posed a huge challenge in terms of research progress as there is a scarcity of experts in the UK who are fully equipped with statistical techniques (i.e., PLS-SEM), scale development and knowledge of Islamic home finance. This drawback caused a short pause in the research process. As a consequence, a decision was made to try and source experts from overseas, and this resulted in the participation of three highly experienced professionals from Malaysia, including two renowned scholars in the field of scale development, structural equation modelling and Islamic finance. Their contribution and evaluation of the constructs played a key role in the development of a solid scale to

measure the proposed constructs. Further to this, some local experts in the field of Islamic banking and finance, statistics and the mortgage sector were consulted to further enhance the soundness of the content validation process. The background of each expert is tabulated in Table 4.7 below.

Table 4. 7 *Experts' Background*

	Expertise	**Years of experience**
Expert 1	Scale development Statistics Structural equation modelling Islamic Finance	>20 years
Expert 2	Scale development Statistics Structural equation modelling Islamic Finance	>20 years
Expert 3	Scale development Statistics Structural equation modelling	>10 years
Expert 4	Econometrics Banking and Islamic Finance	>10 years
Expert 5	Islamic Banking and Finance	>10 years
Expert 6	Statistics Survey design	>8 years
Expert 7	Mortgage broker	>10 years

Having selected the expert judges, an item specification matrix was developed, and the experts were given statement examples and the operational definition of each construct. The expert judges were then asked to assess the relevance, simplicity, and clarity of each item in relation to its respective construct based on three options: **Perfect match** (maintain as is), **Moderate match** (maintain item but make refinements), **Poor match** (remove item). A specimen of the final stage of the matrix is attached in Appendix B.

Based on the experts' feedback, the majority of the items were found to be either perfectly matched or required some refinement. Adjustments were made accordingly and before

moving on to the next stage, the revised items were re-checked again by the experts who approved the perfect matching of the items with the corresponding underlying constructs. Some examples of the initial and subsequently modified statements are specified below.

Initial statement: *Islamic home finance is conveniently attainable in the UK housing market* – underlying construct; accessibility

Modified statement: Islamic home finance is conveniently accessible to potential clients

Initial statement: *Islamic home finance adheres to flexible approval criteria*

underlying construct; extendibility

Modified statement: *Islamic home finance has relatively lenient approval criteria*

Initial statement: Islamic home finance is usually more expensive than conventional home finance – underlying construct; affordability

Modified statement: *Islamic home finance is comparatively inexpensive*

Initial statement: *Islamic home finance involves low arrangement costs*

Underlying construct; affordability

Modified statement: *The arrangement fees for Islamic home finance are relatively low*

Initial statement: *Islamic home finance strictly complies with Islamic jurisprudence*

underlying construct; authenticity

Modified statement*: Islamic home finance in the UK complies with Islamic jurisprudence*

Initial statement: Islamic home finance provides a Shariah compliant alternative to conventional finance – underlying construct; authenticity

Final statement: *Islamic home finance is a more ethical mode of finance*

Initial statement: There is a sufficient market for Islamic home finance among the Muslim community – underlying construct; prospects

Modified statement: *There is a significant demand for Islamic home finance in the UK*

Initial statement: *Islamic home finance is relevant to other faiths*

underlying construct; prospects (for Islamic home finance)

Modified statement: *Islamic home finance is appealing to all faiths and beliefs*

Initial statement: The future of Islamic home finance is promising

Underlying construct; prospects (for Islamic home finance)

Modified statement: *The long-term prospects for Islamic home finance are good*

Initial statement: *Islamic home finance is suitable for non-Muslim majority markets such as the UK* - Underlying construct; prospects (for Islamic home finance)

Modified statement: *Islamic home finance is compatible with Western financial markets, such as the UK's*

Apart from the above modified items, some of the initial items were removed or re-written due to a poor match or for technical reasons. For example, one of the initial items measuring the accessibility construct – *Islamic home finance follows stringent approval criteria* – was removed because according to the experts, it was better to avoid a

negatively worded item, as the results in such cases usually do not support the importance of the item (i.e., item loading is low). Similarly, another item measuring extendibility – *Islamic home finance is selective in its nature* – was also removed due to the experts' suggestion to avoid negative characterisations and to not show bias. Another item – *there is now more knowledge and awareness of the presence of Islamic home finance* – which was intended to measure the accessibility construct, was flagged by the scale development experts as being double-barrelled. Consequently, separate questions regarding 'knowledge' and 'awareness' were included separately under the accessibility construct (see Table 4.6, item 5 and 6).

4.3.4 (e) Prepare questionnaire

Preparing the questionnaire is an important component of the scale development process (Rea & Parker, 2005), because the outcome of the survey results (i.e., their reliability and validity) depends on the design of the questionnaire (Faux, 2010; Krosnick & Presser, 2009; Saunders, Lewis, & Thornhill, 2015). It is extremely important to craft the questionnaire using best practices in order to maximise the response rate and improve reliability and validity (Krosnick & Presser, 2009).

The content validation process played a key role in (and set a solid foundation for) designing an optimal questionnaire, since it screened out ambiguous, negative, and double-barrelled questions and improved their overall clarity. Moreover, the purpose of the research was explicitly specified at the beginning of the questionnaire, and the respondents were given assurances regarding their anonymity in order to encourage them to participate in the survey. As a matter of good practice, personal questions, such

as the level of experience and the religious affiliation of the respondents, were kept until the end of the questionnaire in order to increase the response rate. In addition, careful attention was paid to the layout and appearance of the questionnaire. The layout was divided into several parts, and each section was labelled and numbered accurately in order to clearly define the category of question. Furthermore, the paper-based questionnaires were printed on good-quality paper using commercial laser printing for a professional look, thus stressing the importance of the research and also ensuring that the quality of the responses was not adversely affected.

4.3.4 (f) Pre-testing

Prior to administering a survey, it is recommended that the survey instrument is pre-tested in order to check its effectiveness and performance. Pre-testing a questionnaire is crucially important, especially in the case of online surveys where an interviewer cannot be present to clarify any confusion (Faux, 2010; Rea & Parker, 2005; Saunders et al., 2015). There are a number of reasons for pre-testing a questionnaire (Faux, 2010; Rea & Parker, 2005; Saunders et al., 2015):

- To further check the clarity of the questionnaire items
- To check the layout of the questionnaire
- To check the instructions of the questionnaire
- To eliminate ambiguity
- To gain feedback on the attractiveness and appearance of the questionnaire
- To check how long the survey takes to complete

Even though most of the above issues had been addressed during the content validation stage, the proposed questionnaire was nevertheless pre-tested by three experts in the field of Islamic and conventional finance. The first ten responses collected from the mortgage brokers during the data collection also helped to check the effectiveness and performance of the survey. Some minor adjustments were made in response to the feedback. For example, it was suggested to include a separate comment box at the end of the survey in case the respondents wanted to add remarks on any other issues related to Islamic home finance that had not been covered in the questionnaire. Similarly, it was suggested to specifically mention in the consent section that "You have been selected to take part in this survey as you are an **FCA-regulated** mortgage broker". This change was found to be very significant, since only mortgage brokers who were regulated by the Financial Conduct Authority (FCA) were allowed to take part in the survey. A concise form of the final questionnaire is attached in Appendix C.

4.3.4 (g) Data collection and examination

Following the revisions in the pre-testing stage, the survey was administered between April 2019 and October 2019. A total of 155 responses were collected from FCA-regulated mortgage brokers through an on-line channel (Qualtrics) and in-person from across the country, the majority from the Greater London region. Prior to the data analysis, the collected data was cross-checked for missing values, suspicious and inconsistent response patterns, and outliers. A total of 11 responses were discarded due to missing values and/or inconsistent response patters, leaving a total sample of 144.

4.3.4 (h) Evaluate scale reliability

Evaluation of the scale reliability has been established by assessing individual indicator reliability, composite reliability, Cronbach's Alpha and rho_A coefficient. These measurements are discussed separately in Chapter 6.

4.3.4 (i) Evaluate scale validity

The evaluation of the validity of the measurement scales have been established through convergent validity; discriminant validity: AVE; HTMT, cross loadings and Fornell-Larcker Criterion. These procedures are discussed exclusively in Chapter 7.

4.4 Summary

This chapter has comprehensively discussed the research approach, research strategy and techniques and procedures connected with the research design of this study. It has clearly justified the sampling strategy (purposive sampling) used in this study. In addition, the chapter has examined the sample sizes used by some prominent studies (e.g., Dar, 2004; Galadima, 2015; Hersi 2009; Riaz 2014; Tameme, 2009) in the related subject area prior to designing a well-balanced sample plan. Further to this, the chapter has applied multiple sample calculation methods such as 10-times rules, $R^{2,}$ F^2 and G Power software to ensure the study complies with the minimum sample size requirement.

In a nutshell, this chapter has laid out a roadmap consisting of all the necessary steps required to achieve the research aim, from the research approach to the development of a new scale and the steps involved (e.g., item generation, content validity, pre-testing, scale validity and reliability), to establish a sound framework to fulfil the key aim of the research. As a continuation of the research strategy, the subsequent chapter will

exclusively present an in-depth discussion of the key stage in the scale-development process – construct development and the conceptual framework – and establish the theorised relationships between the identified latent constructs in the form of a research model.

Chapter 5: Constructs Development and Conceptual Framework

5.1 Introduction

This chapter aims to explain and discuss the development of the proposed conceptual framework used to assess the prospect for Islamic home finance in the UK. In doing so it provides a justification for including the constructs such as *accessibility*, *extendibility*, *affordability*, and *authenticity* as the key determinants. The chapter further highlights the role of integrating *religion* and *experience* as categorical variables in the conceptual framework. Further to this, the chapter contains a discussion of the research hypotheses and the definitions of the constructs used throughout in this thesis.

5.2 Identification and Development of the Constructs

The first step in developing theory is to identify, develop, and provide conceptual definitions of the key constructs that will be used as a foundation for the conceptual framework that will underpin this research (Morgado et al., 2017; Worthington & Whittaker, 2006; Sirakaya-Turk et al., 2011).This entails describing and defining the individual constructs under investigation either by conducting a thorough literature review, through induction (e.g., interviews, focus groups), (Tay & Jebb, 2016) or through the researcher's own practical experiences (Hair et al., 2017). This study began with a comprehensive literature review that provided a theoretical basis for outlining the construct's domain.

In addition, the researcher's own relevant experience in the industry and their previously conducted semi-structured interviews[6] with ten experienced mortgage brokers helped to move the domain from abstraction to the identification of (five) key themes or constructs. This then led to the development of a conceptual research framework for this study which was subsequently represented as a research model for empirical scrutiny.

The constructs were developed with reflective indicators, which have a rich history of use in the social and behavioural sciences and are directly founded on classical test theory (Hair, et al., 2017). According to the spirit of classical test theory, reflective indicators are considered "effects" of the underlying construct (Hair et al., 2017; Urbach & Ahlemann, 2010). In simple words, if a measure, item, or indicator "reflects" (i.e., depicts) the underlying construct, it is called a reflective measurement. In contrast, if the items "influence" or "form" (i.e., build) the underlying construct, they are known as formative measurements (Bollen & Lennox, 1991). The proposed constructs are discussed individually in the following section.

5.3 Prospects (for Islamic Home Finance in the UK)

This is the key target endogenous or dependent latent construct in the conceptual framework. This construct refers to the extent to which there is a significant demand and the overall future prospects for Islamic home finance in the UK. Four latent constructs, namely *accessibility*, *affordability*, *authenticity, and extendibility,* and two categorical moderating variables, *religion* and *experience* are hypothesised which are expected to

[6] The semi-structured interviews were conducted in east London during May 2017, initially as part of an ambitious MBA research project. The collected data is based on transcribed interviews covering seven key questions (see Ahmed et al., 2020 for details). Transcripts of the semi-structured interviews can be provided upon request.

influence the *prospects* (for Islamic Home Finance in the UK). These key constructs and moderating variables are sequentially discussed in the section below.

5.4 Accessibility

This latent variable (construct) and refers to the extent to which Islamic home finance in the UK is readily accessible (and comprehensible) to potential clients. The literature suggests (e.g. Ahmed, et al., 2020; Hersi, 2009; Riaz, et al., 2017) that poor understanding of Islamic home finance, a lack of basic knowledge of its uses, and little awareness of its availability, are key determinants affecting its success in the UK. Although the UK government actively promoted Islamic finance through various platforms, such as the Islamic Finance Task Force and the UK Islamic Finance Secretariat, which meant that the UK was a forerunner in the development of Islamic finance, its accessibility still remains a challenge within the UK home financing market.

One reason is the withdrawal of two major high street banks (Lloyds and HSBC) and another key player Bristol and West from the Islamic home financing market, severely damaging the awareness and accessibility of Islamic home finance. This has left the majority of products to be offered by small banks, who already struggle to market Islamic home finance to the minority Muslim community (Fry, 2014). The barriers to accessing Islamic home financing is evident from the following interview extracts from mortgage advisors:

Mortgage broker #2 – *"There are not enough products (Islamic home purchase plans) available."*

Mortgage broker #3 – *"Level of availability is not as prevalent as for conventional mortgages."*

Mortgage broker #5 – *"There are not many banks offering Islamic mortgages."*

Mortgage broker #7 – *"I haven't come across so many people talking about it (Islamic home finance). If they don't talk about it (Islamic home finance), they are not aware of it."*

Other mortgage brokers #9 and #10 also held a similar viewpoint;

"No one knows anything (about Islamic home finance) because there is no advertising as such. People don't know what an Islamic mortgage is."

"If there was any (awareness), then most of my clients would have asked me."

Aside from awareness of Islamic home finance, its accessibility has suffered due to poor financial literacy amongst many Muslims in the UK, with many struggling to fully understand the fundamental basics of Islamic home finance (Ahmed, et al., 2020). The accessibility of Islamic home finance has also suffered due to the low-level understanding of the imams (mosque leaders), who in many cases, are unable to explain the fundamentals of Islamic home financing to the Muslim community. This is further exacerbated by Islamic banks' employees, who on occasions, fail to adequately explain

the structure of the Islamic home finance products they offer to potential customers (Benamraoui et al., 2020).

According to the Muslim Council of Britain (2015), 26% of Muslims have no qualifications, making it difficult for them to comprehend the fundamentals of Islamic home finance. Poor financial literacy was highlighted by an interviewee with more than 15 years' experience in the financial sector. He portrayed this situation from his own experience:

> "*Some of our community people cannot work out a 20% deposit or yield or anything like this. How can they understand an Islamic mortgage? Someone needs to be reasonably well-educated to understand the structure of Islamic mortgages*."

Other mortgage brokers (e.g., #1 #10) also expressed similar views:

> "*I think a lot of people don't understand (Islamic mortgages). Maybe the wording has to be a bit clearer for a layman to understand*."

> *"People think it's a very difficult product and very difficult to understand."*

Other studies, for example Abdullrahim and Robson (2017), have also considered acessibilty to be one of the most important factors for British Muslim banking customers in the UK. The findings of Hersi (2009) also concludes that Islamic finance predominantly caters for the rich class and with poor accessibilty for less affluent Muslims. Indeed, Islamic home finance has become a niche product, which has led to the inaccessibility of wide-ranging Islamic home finance products to the diverse Muslim community in the UK (Riaz, 2014). In the same manner,Tameme and Asutay (2012) found accessibilty to be a concern for potential Muslim customers, acting as a real impediment to the prospects

for Islamic home finance. In a nutshell, the accessibity of Islamic home finance is restricted by sacrcity of high street banks offering home financing, limited choice of product availabilty and poor financial literacy amongst the Muslim community in the UK. Thus, this validates the research hypothesis that:

> H_1: *Accessibility has a positive significant effect on the prospects for Islamic home finance in the UK*

5.5 Affordability

This exogenous construct in the conceptual framework refers to the extent to which Islamic home finance is affordable or cost-effective for UK home finance customers. The commonly held belief that Islamic home finance is generally more expensive than interest-based home finance is well founded. According to M. Amin (2017), the instinct of a large number of UK Muslims is to avoid dealing with conventional home finance. However, they are often dismayed by the cost of Islamic home finance in comparison to the conventional mortgage. There is a consensus amongst the literature that reinforces this view.

For example, Tamame and Asutay's (2012) research claims that Muslim customers were deterred from proceeding with Islamic home financing due to the higher cost of repayments. Tamame and Asutay (2012) also refers to the need for a higher deposit as an added factor that makes Islamic home finance unaffordable for many potential customers. Hersi (2009) concludes that UK Muslims prefer Islamic finance, but its affordability (such as the need for a higher deposit) deters less affluent UK Muslims. Galadima (2015) suggest that Islamic home purchase plans are expensive and require a minimum 20% deposit for securing home finance in a market in which Muslims are

disproportionately poor. Benamraoui et al. (2020), Cumbo (2005) and Dar (2004) also attribute higher costs as the key factor for the low uptake of Islamic home finance in the UK.

One of the key reasons for this discrepancy is due to the higher additional expenses that Islamic home finance providers have to bear, such as the administration and legal cost as well as paying fees to Sharia'h scholars (Benamraoui et al., 2020; Gordon, 2020). Similarly, the funding cost of Islamic banks are often higher because, unlike conventional banks, Islamic banks do not create money out of nothing or borrow funds at low interest rates either from the Bank of England or wholesale money markets. Instead, Islamic bank mainly rely on customer savings accounts to fund home financing. This results in paying higher returns to deposit holders, which in turn makes Islamic home finance more expensive (Ahmed et al., 2020; Tameme 2009; Saleem, 2021). Interviews conducted with mortgage brokers also defined affordability as one of the key factors affecting the prospects for Islamic home finance as evident from the following excerpts:

> *Mortgage broker #1 – "Islamic mortgages are expensive. There is no comparison (with a standard mortgage)."*
>
> *Mortgage broker #2 – "A major issue is the deposit ... no one can afford to pay a 20% deposit. First-time buyers cannot touch it (Islamic home finance)."*
>
> *Mortgage broker #3 – "It is a bit more expensive than a conventional mortgage due to the fact that the level of availability is not the same as a conventional mortgage."*
>
> *Mortgage broker #6 – "It (Islamic home finance) used to be very expensive; they*

(Islamic banks) have lowered it now but it is still expensive."

Mortgage broker #7 – "Their (Islamic home finance) standard variable rate is quite high."

Mortgage broker #9 – "An Islamic mortgage is a little bit more expensive than a normal mortgage."

These statements, along with the studies discussed above, provide sufficient support to hypothesise that:

H_2: *Affordability has a positive significant effect on the prospects for Islamic home finance in the UK*

5.6 Authenticity

This exogenous construct in the conceptual framework refers to the extent to which Islamic home finance is perceived as *bona fide* and trustworthy. This reflective latent construct is measured using three items. The issue of trust can be defined as a "customer's confidence in the quality and reliability of the services offered" (Garbarino & Johnson, 1999, p.73). In marketing and promoting Islamic products, trustworthiness is highly expected as authenticity or ethical principles encapsulate the core foundation of Islamic jurisprudence (Zakariyah, 2012).

As discussed in the earlier chapters (1 and 2), the fallout from the sub-prime crisis of 2007–2009 has drastically transformed the dynamics of the financial market. On the one hand, it severely undermined the reputation and gains of the conventional banking sector. More than ten years on from the financial crisis and the financial services industry at large

is still struggling to regain the trust of customers (Chater, 2015). On the other hand, the sub-prime crisis has revived the relationship between financial stability and Islamic banking due to a focus on principles of partnership, transparency and fairness (Hasan & Dridi, 2011). These principles aid the construction of a healthier and more stable financial system. This has been evident during the recent subprime financial crisis, which left Islamic financial institutes largely unscathed in terms of budgetary losses (Iqbal & Mirakhor, 2011; Warde, 2012). Attracted by ethical values, non-Muslims have also begun to apply for Islamic financial products and services (Alam & Seifzadeh, 2020; Lee, 2017; Saiti, Ardo, & Yumusak, 2019), with evidence in Hong Kong, Singapore, Luxembourg, South Africa, and the UK (World Bank, 2015).

In the UK, the development of Islamic finance has followed industry trends that lean towards more profitable investment and commercial aspects, with less priority shown towards retail finance. As evidence, the UK's first standalone Sharia'h-compliant bank, Al Rayan Bank (formerly known as Islamic Bank of Britain) had a total gross home financing fund of just £311.6 million by the end of fiscal year 2015, despite the bank beginning its operations in 2004 (Al Rayan Bank, 2015). According to Zakariyah (2012), the most apparent fault of the Islamic home finance industry has been its failure, in the eyes of observant Muslims, to comply with the basic ethical principles of Islamic jurisprudence. For example, in the past Islamic banks in the UK routinely linked the interest rates on products to the controversial LIBOR benchmark, casting a shadow of excessive uncertainty on Islamic home finance products that might be considered *gharar*[7]. Yap's

[7] The Arabic word *Gharar* is a fairly broad concept that literally means deceit, risk, fraud, uncertainty or hazard that might lead to destruction or loss (Akther, 2015).

(2011) study observed that "*banks are promoting debt-based products as 'Islamic' even though they do not adhere to the riba injunction*" (p.234). Similarly, Kuran (2006) argues that characterising Islamic banks as a brand promoting honesty, trustworthiness and fairness in modern economies risks adverse comparison with the actual values practiced by Islamic financial institutes driven by economic pressures to compete with their conventional counterparts.

These observations further tarnish the *authenticity* of Islamic home finance products, already struggling to gain trust in the UK market. Thus, Muslims in Britain face a dilemma in the sense that they are left with two options: i.e., either use a financial product that they find offensive to their religious principles, or choose an alternate, more Shari'ah-compliant arrangement, which may not be 100% compliant to the dictates of Islam (Zakariyah, 2012).

A 2014 study by Riaz concluded that many potential UK customers believe Islamic banks tend to exploit the weakness of religiously-conscious consumers, and there is a lack of trust regarding Islamic banks' actual practices vis-a vis what they claim to do, as well as a degree of misconception among non-Muslims over Islamic banking activities. Hersi, (2009) contends that Islamic home finance in the UK is somehow detached from the Muslim community, particularly the less affluent segment, which has added to the mistrust in Islamic home finance. It is generally perceived that Islamic home finance in the UK is mainly judged on the basis of legal compliance rather than its religious permissibility as a pure Islamic financial contract (Benamraoui et al., 2020). Some of the renowned Islamic scholars (e.g., Shaykh Akram Nadwi and Shaykh Haitham Al-Haddad) have also shown mistrust in Islamic home finance, claiming that it is not truly Sharia'h compliant, and more

like conventional finance dressed up in a religious garb (Saleem, 2020). Hence, this research hypothesises that:

> H_3: *Authenticity has a positive significant effect on the prospects for Islamic home finance in the UK*

5.7 Extendibility

This is an exogenous construct and refers to the extent to which Islamic home finance is easily extendible to potential clients. The extendibility of Islamic home finance has become a cause of concern for many potential UK customers. This issue is largely attributed to a lack of liquidity and a careful risk appraisal carried out by Islamic banks. Generally, conventional banks are able to lend out cash by borrowing from the wholesale money market, whereas ethical Islamic finance is much more reliant on its more costly depositors' savings accounts, to provide cash for lending (Ethica, 2017; Tameme, 2009). Therefore, to fulfil its role as a partner rather than merely a lender, Islamic banks arguably assess risks more deeply, or certainly assess risks differently in a more personalised manner to monitor effectively the use of funds by borrowers for the mutual benefits of all stakeholders (Warde, 2012). The double assessment of risk by both the financier and the borrower injects greater discipline into the system and restrains excessive lending and borrowing (Chapra, 2011). There is no doubt that this principle safeguarded banks during the sub-prime crisis (Iqbal & Mirakhor, 2011; Warde, 2012). However, this conservative approach to business has raised questions over the extendibility of Islamic home finance, particularly in the UK market. It is not surprising that a study conducted by Tameme in 2012 found that many potential Muslim clients interested in home financing did not

proceed due to a perception that success may be difficult, because of the strict criteria applied.

Ahmed et al. (2020) and M. Amin (2010b) also conclude that the home finance process is perceived by the Muslim community to be overly complicated, placing the complex structure of Islamic finance beyond the understanding of customers who have previously lacked engagement with financial institutions or who may be financially illiterate. The interviews with financial experts also revealed that Islamic home finance is not only considered to be excessively complicated, but also difficult to secure. For example.

Mortgage brokers *#3, #4 and #6 stated:*

"*The mortgage criteria are tighter than for conventional mortgages*".

"It is not easy to get the mortgage in the first place."

"Islamic finance is very difficult to get … the criteria are very difficult."

Despite the efforts of the UK government and Islamic banks to streamline the process and bring Islamic home finance closer to conventional home finance, it is yet to be considered as an easily extendible product. This perception mainly appears to be attributed due to the inaccessibility of Islamic home finance in the UK market. This demonstrates that the complex nature, and strict and tighter criteria (extendibility issues) associated with Islamic home finance that are largely attributed to the lack of liquidity and careful risk appraisal, directly affect the accessibility of Islamic home financing, which in turn affects the prospects for Islamic home finance.

Therefore, it is logical to assume that extendibility does affect the prospects for Islamic home finance, but such influence is handled through accessibility. Hence, this study views extendibility as a determinant of accessibility in the conceptual framework, whereby accessibility acts as an intervening variable between extendibility and the prospects for Islamic home finance.

Thus, this study formulates the following hypotheses:

> H_4: *Extendibility has a positive significant effect on the accessibility of Islamic home finance in the UK*
>
> H_5: *The effect of extendibility on the prospects for Islamic home finance is mediated by the accessibility of Islamic home finance in the UK*

In addition to the above constructs, two further features (categorical variables) of the conceptual framework need to be discussed. That of *religion* and *experience*.

5.8 Religion

As previously mentioned in the literature review, much of the existing research on Islamic home finance (e.g., Dar, 2004; Hersi, 2009; Riaz, 2014; Tameme, 2009; Tameme & Asutay, 2012) has been restricted to a one size fits all approach, or has been over-reliant on a Muslim perspective, resulting in one-sided religious viewpoints and failing to fully incorporate non-Muslim perspectives, thus portraying an incomplete picture of the research area. Therefore, one objective of this research is to address this mono-religious bias and present a nuanced account of the role of religion and its impact on the industry's prospects.

It is a fact that “religion is an important part of life for most individuals around the world” (Mathras, et al., 2015, p. 2) and various studies (e.g., Delener, 1990; Essoo & Dibb, 2004; Mansori, 2012) have noted the role of religious affiliation on consumer behaviour. The marketing literature consistently incorporates references to religious belief and its impact on user behaviour (Bailey & Sood, 1993) as the religious belief of the individuals shapes their emotional experience, perception and psychological well-being, which in turn, affects the consumption choices they make (Mokhlis, 2006). However, economics-oriented studies typically model credit markets using continuous variables such as interest rates, income and risk etc., but lack focus on religion, which retains a strong but nebulous influence on home- financing decisions which is difficult to quantify (Karlan, Osman, & Shammout, 2017). Essoo and Dibb (2004) suggest that religious affiliation may motivate consumers to create a demand for a particular product or service.

In the context of the current study, it is logical to believe that the religious affiliation (Muslims and Non-Muslims) of participants will act as a moderator which may influence path relationships between independent variables (i.e., *extendibility*, *affordability* and *authenticity*) and the dependent variable; *prospects* (for Islamic home finance in the UK) across data groups of Muslim and Non-Muslim mortgage brokers. Thus, this study hypothesises that:

> $H_{6:}$ *Religion will have a significant categorical moderating effect on the relationship among model constructs.*

5.9 Experience

Experience is also treated as a categorical variable in the conceptual framework and is

measured by the number of years a participant has worked in the home financing industry. The concept of experience refers to the practical wisdom accumulated through an individual's knowledge gained from what he or she has observed, encountered, or undergone over a specific number of years.

There are two reasons to include experience as a categorical moderator in the research model. Firstly, the applications of PLS-SEM implicitly assume that the used data is stemmed from a single homogeneous population without any systematic influences of other variables (Hair, et al., 2018; Jachowicz & García-Machado, 2018). In many cases, particularly in the context of the current study, this assumption of homogeneity does not hold, given that mortgage brokers with varied lengths of service at different levels of responsibility are more likely to reflect heterogeneous perceptions and evaluations of the industry. More importantly, when heterogeneity exists, significantly negative and positive group-specific effects are likely to cancel each other out when analysed on the aggregate data level, suggesting the absence of a significant relationship (Jachowicz & García-Machado, 2018). Therefore, pooling data as a single sample may potentially fail to assess whether there are significant differences across two or more subgroups of data (Chin & Dibbern, 2010). Failing to consider, or disregarding heterogeneity in a data structure, could potentially lead to false or incorrect conclusions in terms of (PLS-SEM) model relationships (Becker, et al., 2013; Hair et al., 2017). The prominent approach to identify whether the categorical variable (i.e. experience and religion) has a potential to moderate the causal effect of exogenous variable (i.e. affordability, authenticity) on the endogenous construct prospects (for Islamic home finance in the UK) is through the use of partial least squares multigroup analysis. The multigroup analysis offers a more complete picture of

the moderator's influence on the analysis results, as the focus shifts from examining the moderator's impact on one specific model relationship to examining its impact on all model relationships (Sarstedt et al., 2011). Secondly, comparing group differences will provide a new theoretical insight into the field of study by uncovering clear-cut differences between the groups (i.e., Group A = Muslim vs. non-Muslims; Group B = high vs. low experience), and PLS-MGA will also help fill the gap in the existing literature.

Secondly, Islamic home finance was largely untouched in the course of the sub-prime crisis (Iqbal & Mirakhor, 2011; Warde, 2012) and has been transformed over the years since. Therefore, disregarding the moderating effect of experience would jeopardise the credibility of the findings and may lead to a false prediction of the industry's prospects. Therefore, this research assumes that mortgage brokers with life-time knowledge (i.e., > 10 years' industry experience) and first-hand experience of the sub-prime crisis, and who worked through the transformation of Islamic home banking, would be likely to assess the prospects for Islamic home finance significantly differently from novice mortgage consultants (<10 years' experience) who had not experienced the subprime crisis in their professional career. Therefore, this research hypothesises that:

> $H_{7:}$ *Experience will have a significant categorical moderating effect on the relationship among model constructs.*

Based on the above hypotheses and constructs, the following conceptual framework has been developed showing constructs and their relationship, represented as a structural model.

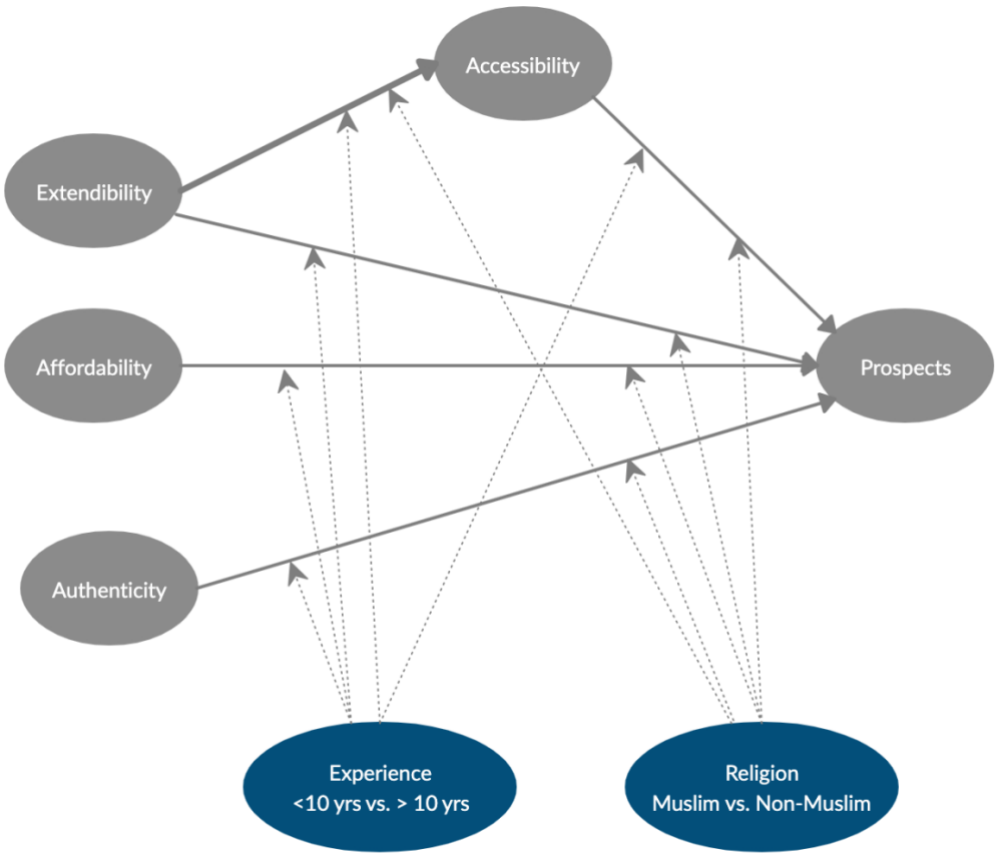

Figure 5. 1 *Conceptual Framework*

Note: Direct effect ⟶ Indirect effect ⟹ Moderators' effect ⇢

Following development of the conceptual framework, the study utilises the PLS model in SmartPLS 3.0 to estimate the significance of the relationship between the constructs (H_1 – H_5) and to determine how well the model explains the target construct: *prospects* for Islamic home finance in the UK. The study also carries out multi-group analysis to compare data groups comprising Muslims vs. non-Muslims and high-experience vs. low-experience mortgage brokers to determine the differences in their group-specific parameter estimates to test the moderating effect of religion (H_6) and experience (H_7) on the relationship among model constructs.

5.10 Summary

This chapter has discussed the need for, and development of an innovative theoretical framework, to examine the prospects for Islamic home finance in the UK in order to address the gaps in the literature and thus fulfil one of the objectives of this study. The chapter has also provided a justification for the development of constructs (i.e., *accessibility*, *extendibility*, *affordability* and *authenticity*) and their hypothesised relationships in the conceptual framework based on existing supporting studies, interviews with financial experts and the researcher's own experience in this industry.

Furthermore, because the existing research on Islamic home finance (e.g., Dar, 2004; Hersi, 2009; Riaz, 2014; Tameme, 2009; Tameme & Asutay, 2012) is restricted to a one-size-fits-all approach, or is overly reliant on a Muslim perspective, the result is a one-sided religious viewpoint. This chapter has taken this deficiency into account and integrated religion as categorical variable in the research framework, to address the mono-religious bias and to examine a nuanced account of the role of religion and its impact on the industry's prospects. Similarly, there has also been a validation of the role of integrating experience as a categorical variable in the research framework. In the following chapters 6 and 7, the proposed conceptual framework will be empirically assessed by applying a two stage PLS-SEM approach in order to achieve the overall aim of this study.

Chapter 6: Assessing PLS-SEM Results (Part I)

6.1 Introduction

The assessment of the research framework through partial least squares structural equation modelling (PLS-SEM) is a two-stage process. This chapter covers the first part and evaluates the measurement models' indicator reliability and internal reliability, such as composite reliability, Cronbach's alpha, and rho (ρ_A), using SmartPLS 3. The chapter further assesses convergent validity through the average variance extracted (AVE) approach, and discriminant validity through the cross-loadings approach, the Fornell–Larcker Criterion, and the most recent criterion — the heterotrait-monotrait (HTMT) ratio of correlations. Prior to evaluating the measurement models, the background of the structural equation modelling (SEM) is discussed first, followed by the selected statistical technique; (PLS-SEM) and other procedures (i.e. data examination, missing data, outliers and data normality).

6.2 Structural Equation Modelling (SEM)

Structural equation modelling (SEM) is an emerging second-generation multivariate statistical procedure and has become an important statistical method today to analyse cause-effect relations between independent and dependant variables simultaneously (Afthanorhan, Awang, & Mamat, 2016; Awang, 2015; Hair, et al., 2017; Hair, Ringle, & Sarstedt, 2011; Wong, 2019). The term structural equation modelling embodies two key elements of the procedure; first that the causal processes under research are represented by a sequence of structural (i.e., multiple regression) equations, and then those structural

relationships are modelled graphically enabling a clearer conceptualisation of the theory under study (Bryne, 2001).

There are two main approaches to estimating the relationship in a structural equation model; namely factor-based (Jöreskog, 1970) commonly referred as covariance-based SEM (CB-SEM) and component or variance-based (Wold,1966;1973;1982;1985) frequently referred as partial least squares SEM (PLS-SEM) and PLS path modelling (Hair et al., 2011). The key decision between CB-SEM and PLS-SEM depends on the research context, for example, theory-testing or theory development (predictive application). Therefore, it is important to draw a brief distinction between these two methods before justifying the suitability of the selected method (PLS-SEM) in this study. The Covariance-based structural equation modelling (CB-SEM) has been the dominant method for analysing complex interrelationships between observed and latent variables over the last many years (Hair, et al., 2019). Technically, CB-SEM is mainly applied in studies those aim to confirm theories by determining how well a proposed theoretical model can estimate the covariance matrix for a sample data set (Hair et al., 2017). In addition, CB-SEM relies on the assumption of normal data distribution and large sample size (Hair, et.al., 2018; Jannoo, et al., 2014; Sarstedt, Ringle, & Hair, 2014).

In contrast, PLS-SEM is primarily used in a situation where theory is less developed, and the primary objective is prediction and explanation of the target construct (Hair, et al., 2017; 2018; Rigdon, 2012; Wold,1985). Unlike, CB-SEM, PLS-SEM is relatively robust with non-normal data and can be used in a situation where the sample size is small (Avkiran & Ringle, 2018; Afthanorhan, Awang, & Mamat, 2016; Ali, et al., 2018; Hair, Ringle, & Sarstedt, 2011), thus allowing more flexibility in analysing theoretical models

(Lowry & Gaskin, 2014). The conceptual difference between CB-SEM and PLS-SEM is shown in Table 6.1

Table 6. 1 *Conceptual and Technical Differences between CB-SEM and PLS-SEM*

PLS-SEM	CB-SEM
PLS-SEM is suitable both for research situations where theoretical knowledge is limited and for newly developed construct measurements	CB-SEM is more suitable for research situations in which theoretical knowledge is rich, and well-established - confirmatory in nature
PLS-SEM is theory development and exploratory in nature	CB-SEM strictly focuses on theory testing and is best suited for confirmatory purposes
PLS-SEM runs estimates based on ordinary least squares (OLS) regressions	CB-SEM makes estimates based on maximum likelihood
Non-Parametric orientated	Parametric orientated
PLS-SEM aims to maximise the explained variance of one or more dependent variables	CB-SEM aims to minimise the discrepancy between the covariance matrix implied by the model and the sample covariance matrix.
As a composite approach, PLS-SEM easily allows the modelling of formative and reflective measurement models.	As a common factor approach, the use of formative measurements in CB-SEM is extremely limited. Typically, CB-SEM only allows reflective measurement models
The integration of archival data is easily possible in PLS-SEM	Archival data do not regularly follow the assumption of common factors, hence not suitable in CB-SEM
Imposes flexible sample size restrictions (min 20-100), because PLS-SEM model is separated into different smaller components (a component for each construct in the model	CB-SEM imposes rigid sample size restrictions (min 200-800) because relationships between all variables must be assessed (i.e., a full information approach)
No normal data distribution assumptions	Data must be normally distributed
PLS-SEM can handle 1-2 items per construct	In CB-SEM, typically, 3-4 minimum items meet the identification requirements
PLS-SEM easily oversees complex models	Large models are problematic in CB-SEM
PLS-SEM is less stringent with non-normal data (although PLS-SEM will still affect results, just to a lesser extent)	In CB-SEM, data must be normally distributed, otherwise findings will be considered unreliable
Software handling PLS-SEM (i.e., SmartPLS 3) facilitates the integration of Importance Performance Matrix Analysis (IPMA)	CB-SEM software such as AMOS and LISREL lack integration of Importance Performance Matrix Analysis (IPMA)
No (established) goodness-of-fit criteria	Offers many goodness-of-fit measures

Sources: Chin and Newsted (1999); Hair et al., (2011); Lowry and Gaskin (2014); Nitzl, (2016); Ringle and Sarstedt (2016); Sarstedt, Ringle, and Hair (2014)

Since this research follows the PLS-SEM approach, the next section exclusively focuses on PLS-SEM method and justifies its application in this study.

6.3 Partial Least Squares Structural Equation Modelling (PLS-SEM)

PLS-SEM was originated by Wold in 1966 as a component-based approach and further developed in the years after (e.g., Wold, 1973, 1982, 1985). To date, PLS-SEM has gained considerable attention and seen as an alternative approach to CB-SEM (Hair, et al., 2017; Ringle, Rigdon, & Sarstedt, 2018).

Apart from the flexible nature of PLS-SEM (e.g., handling complex models, less stringent with small sample size and non-normal data), one of the key reasons for PLS-SEM popularity is its focus on prediction and exploration (Hair, et al., 2017; Henseler, Ringle, & Sinkovics, 2009; Wold, 1982;1985). Due to this core characteristic, PLS-SEM has gained widespread interest in the past many years and has been widely used in many social science disciplines (Hair, et al., 2019). For example, organisational management (Sosik, Kahai, & Piovoso, 2009), international management (Richter, et al., 2016), human resource management (Ringle, et al., 2018), management information system (Ringle, Sarstedt, & Straub, 2012), operation management (Peng & Lai, 2012), management accounting (Nitzl, 2018), strategic management (Hair, et al., 2012), Tourism and hospitality (Ali, et al., 2018; do Valle & Assaker, 2016), supply chain management (Kaufmann & Gaeckler, 2015), banking and finance (Gadzo, Kportorgbi, & Gatsi, 2019; Tailab, 2020) and e-commerce (Sharma & Aggarwal, 2019).

There are multiple reasons for using PLS-SEM in this study. One of the key reasons is the causal predictive nature of PLS-SEM as this characteristic of PLS-SEM is particularly

important in social science in general and particularly in this study. Unlike the classic CB-SEM approach which mainly focuses on the model fit, does not necessarily mean that a well-fit model also predicts well. Indeed, it is often the case when a model fits very well but fails to generate predictions. In the same fashion, a model which predicts very well, but the model fit as implied by model metrics is unbelievably bad (Sarstedt, 2020). PLS strikes balance between these two extremes, by following a prediction-oriented approach because it aims at maximising the explained variance of the dependant construct (Hair, et al., 2017). In PLS-SEM, predictions do not occur in a vacuum but stem from the model which has been carefully defined based on theoretical concepts and logic. At the one hand, PLS-SEM allows us to test causal relationships, while on the other hand at the same time provides an opportunity to predict and derive recommendations for strategic decision making (Sarstedt, 2020).

Further to this, PLS-SEM also facilitates to perform importance-performance map analysis (IPMA) or priority map analysis to enriches PLS-SEM findings and thereby to gain additional results and findings (Ringle & Sarstedt, 2016). The application of IPMA identifies the key and high priority improvement areas that can be addressed by more rigorous management decision-making or policy activities (Tailab, 2020; Streukens, Leroi-Werelds, & Willems, 2017). Last but not least, the IPMA also becomes even more particularly useful when contrasting PLS-SEM results from a multigroup analysis (Hair et al., 2017; Ringle & Sarstedt, 2016), which also serves one of the key objectives of this study.

Since this research focuses not only prediction but also develops theory (develops new constructs measurements), it utilises/employs a rather complex model involving

mediation and moderator analysis. In addition, it conducts priority map analysis, whereby the application of PLS-SEM is justified in this study. Apart from this, PLS-SEM has been rarely used in Islamic Finance, particularly in the UK. Therefore, the use of PLS-SEM concurrently addresses the gap in the literature.

6.4 Data Examination

Prior to evaluating the measurement models, it is necessary to examine data first as it is a particularly important step in all types of research, particularly in studies using SEM (Hair et al., 2017). The primary issues that need to examine in data examination process include evaluating missing data, identifying suspicious response patterns (straight lining or inconsistent answers), identification of outliers and checking data distribution i.e. normality assumption (Hair, et al., 2010; Tabachnick, Fidell, & Ullman, 2018). Each of these steps is briefly discussed in the following section.

6.4.1 Missing Data

Missing data is an important bias in partial least squares structural equation modelling (Kock, 2018). According to Hair et al., (2010), missing data below 10 percent for an individual observation can generally be ignored, whereas missing data for an observation exceeding 15%, should be removed from the data set. In cases where less than 5% of values *per indicator* are missing, it is recommended that the mean replacement method is used (Hair et al., 2017).

In this study, the data which was collected via Qualtrics did not allow the participants to skip any question without answering the antecedent question. Therefore, all on-line responses resulted in no missing value. In contrast, a few paper-based responses

experienced missing values and any partially completed questionnaire were discarded and have not been included in the data analysis. The final data set had only two missing values. More precisely, two indicators; extend_3 and authen_1 each had missing one value (0.70%), far lower than the minimum 5% threshold. Thus, the mean value replacement remedy was used to maintain the data in line with the original distribution of the values as recommended by Hair et al., (2017). Furthermore, none of the observations had more than 10 or 15% missing values, so the study proceeded to analyse the final set of data with 144 observations as shown in Table 6.2.

6.4.2 Outliers

“An outlier is an extreme data point that is significantly different from the remaining values in a set of observations” (De Muth, 2014, p. 645). Outliers can result from data collection entry errors, for example, manual entry of “77” instead of “7” on a Likert scale (Hair et al., 2017). The detection and treatment of outliers are therefore important because it can dramatically impact data normality and also seriously distort statistical testing (Tabachnick et al., 2018).

The empirical data collected through Qualtrics did not suffer from any extreme outliers due to automated data entries. However, the manual data entries collected through paper-based instrument was cross-checked to ensure that the data set does not represent an outlier behaviour. As shown in Table 6.2; no extreme value is evident in the data set as all values range between 1-10 Likert scale.

6.4.3 Suspicious Response Patterns

Before analysing data, it was also ensured that the data does not include any suspicious response patterns. Common sense proposes to remove any suspicious cases from the data as these cases probably reduce overall accuracy (Leiner, 2013).

Keeping this issue in mind, data was closely examined, and all responses were excluded from the data where the response pattern found to be the same (i.e. all 5s) throughout the survey. Similarly, any survey completed too quickly[8] was also deleted from the data as it is highly unlikely that the respondents read the question carefully before providing their answers.

6.4.4 Data Normality

Technically, PLS-SEM is a non-parametric statistical approach different from maximum likelihood (ML) – based CB-SEM, which does not require the data to be normally distributed (Hair et al., 2017; 2019; Henseler, Ringle, & Sinkovics, 2009; Jannoo et al., 2014; Kock, 2016; Ramayah, et al., 2016). Nevertheless, it is still important to verify that the data are not too far from normal as extremely non-normal data may prove problematic in the assessment of the parameters' significances (Hair et al., 2017) and may lead to inaccurate results (Henseler et al. 2009; Jannoo et al., 2014). Therefore, data normality was examined through two measures of distributions - skewness and kurtosis. "Skewness is a measure of whether a distribution trails off in one direction or another" (Morgan & Griego, 1998, p. 229). If the distribution of responses for a variable stretches towards the right and left tail of the distribution, then the distribution is characterised as skewed.

[8] Time needed to complete the online surveys was cross-checked on the Qualtrics platform.

Kurtosis is a general measure of peakedness / flatness of data distribution (Vieira 2017). When both skewness and kurtoses are close to 0 (a situation highly unlikely to occur), the pattern of responses is considered a normal distribution (Hair, et al., 2017). As a general rule, if the number is greater than +1 or lower than -1, indicates skewed distribution. Similarly, for Kurtosis, if the number is greater than +1, the distribution is considered too peaked, whereas less than -1 indicates a distribution that is too flat. Hence, distribution exhibiting skewness and/or kurtosis falling outside the range of -1 to +1 are considered non-normal (Hair et al., 2010; 2014; 2017).

The final data set revealed (see Table 6.2) that the skewness and kurtosis values of the indicators are within the -1 and +1 acceptable range suggesting that data tails off appropriately and relatively symmetrical. The only exception is indicator access_5 and access_6, having a skewness value of 1.003 and 1.022 and thus exhibiting a very slight degree of non-normality. However, the degree of skewness is not severe. In addition, because access_5 and access_6 are two of the six indicators measuring the (reflective) *accessibility* construct, therefore this slight deviation from normality is not considered an issue and both indicators were retained. The descriptive statistics values are shown in Table 6.2 suggesting a normal distribution of data.

Table 6. 2 *Data Examination*

Items	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
access_1	0	4.257	4	1	10	2.454	-0.577	0.502
access_2	0	5.014	5	1	10	2.424	-0.963	0.019
access_3	0	3.611	3	1	10	2.021	0.471	0.895
access_4	0	3.604	3	1	10	2.132	0.45	0.989
access_5	0	3.528	3	1	10	2.061	0.487	1.003
access_6	0	3.319	3	1	10	2.05	0.785	1.022
extend_1	0	3.972	4	1	9	1.933	-0.207	0.244
extend_2	0	4.097	4	1	10	2.161	-0.498	0.328
extend_3	0	3.944	4	1	9	1.961	-0.565	0.185
afford_1	0	4.417	5	1	10	2.093	0.092	0.371
afford_2	0	3.764	4	1	10	2.095	0.325	0.665
afford_3	0	4.174	5	1	9	2.145	-0.421	0.258
afford_4	0	4.347	5	1	9	1.912	-0.461	-0.043
authen_1	0	5.354	5	1	10	2.393	-0.579	0.231
authen_2	0	5.417	5	1	10	2.586	-0.774	0.084
authen_3	0	4.743	5	1	10	2.56	-0.552	0.31
prosp_1	0	4.292	4	1	10	2.46	-0.34	0.634
prosp_2	0	3.493	3	1	10	2.294	-0.124	0.705
prosp_3	0	4.958	5	1	10	2.511	-0.621	0.324
prosp_4	0	5.16	5	1	10	2.73	-0.98	0.101

6.5 Sample Characteristics

After having collected a total of 155 responses and following data examination, a total of 11 responses were deleted due to overly missing values and inconsistent or suspicious response patterns leaving a total sample of 144. The final data was divided based on two categories: religious affiliation (Muslims and Non-Muslim) and experience level (high = >10 years and low experience = <10 years). The participants who specified their religious affiliation as Muslim were found to be 65 (45%) and non-Muslim 79 (55%). In terms of experience level in the industry, 76 participants (mortgage brokers) had over 10 years' experience (53%) in the mortgage market in comparison to those who had less than 10 years' experience in the industry consisting 68 (47%) participants (see Table 6.3).

Table 6. 3 *Sample Characteristics*

Religious affiliation		
Muslims	65	45%
Non-Muslims	79	55%
Total Sample	144	100%
Industry Experience (Years)		
> 10 years	76	53%
< 10 years	68	47%
Total Sample	144	100%

6.6 Evaluation of the Measurement Models

After having examined the data e.g., missing data, outliers, suspicious response patterns, data normality, the next step involved the evaluation of the measurement models. This includes the measurement models' indicator reliability, internal consistency reliability i.e., Cronbach's Alpha (α); composite reliability and rho (ρ_A), convergent validity; average variance extracted (AVE) and discriminant validity — indicator cross-loadings, the Fornell–Larcker Criterion, and the heterotrait-monotrait (HTMT) ratio of correlation. The assessment of these measures has been conducted through SmartPLS 3 and discussed individually in the following sections.

6.6.1 Indicator Reliability

The first step in evaluating the reflective measurement scale involves estimating the relationships between the reflective constructs and their corresponding indicators, i.e., the outer loadings (Hair, et al., 2017). "Indicator reliability describes the extent to which a variable or set of variables is consistent regarding what it intends to measure" (Urbach & Ahlemann, 2010, p.18). An indicator loading above 0.70 is highly satisfactory (Hair et al., 2017), and 0.5 or higher is acceptable (Taylor & Geldenhuys, 2019). As can be seen in Figure 6.1, all outer loadings for each indicator are above the recommended threshold of 0.70, except for the indicator prosp_1 (outer loadings: 0.695). This value is marginally

below the satisfactory threshold value of 0.70. However, loading values of 0.6 and 0.5 are also considered acceptable as long as the other indicators have high loading scores (Dijkstra & Henseler, 2015). Therefore, this item has been retained, since the other loadings scored high to complement the convergent validity (AVE) and composite reliability (CR) of the construct.

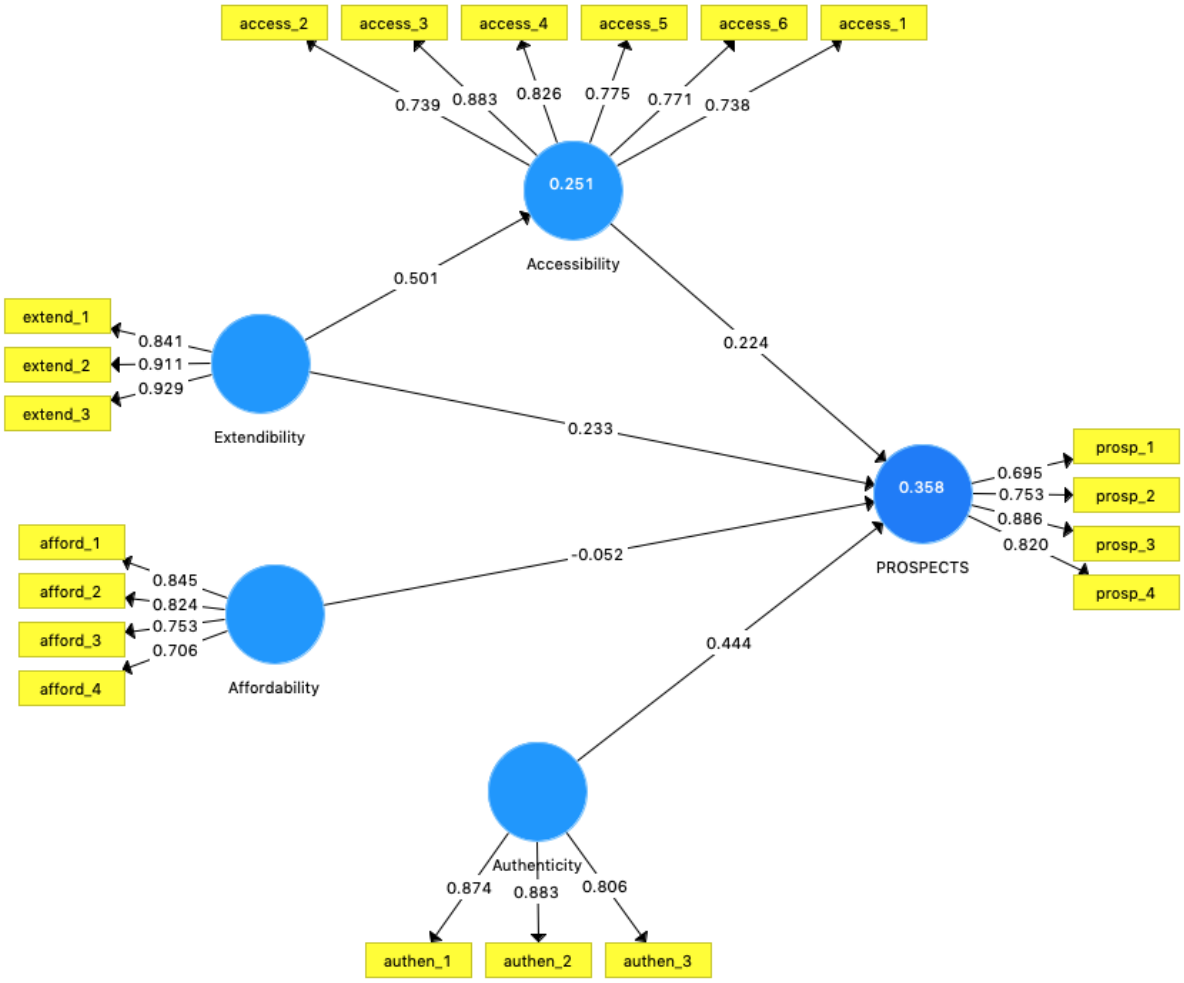

Figure 6.1 *Graphical Presentation of Indicator Loadings*

6.6.2 Internal Consistency Reliability

The second step is assessing the internal consistency reliability. Internal consistency explains the extent to which all the questions or items in a scientific test measure the

same construct, or hang together (Tavakol & Dennick, 2011). Typically, Cronbach's alpha (α) is used to measure the internal consistency reliability, but this approach tends to provide conservative measurements (Wong, 2019) or less precise measurements of reliability, since the items are unweighted (Hair et al., 2019). Previous literature (e.g., Bagozzi & Yi, 1988; Dijkstra & Henseler, 2015; Hair et al., 2017) has recommended using Jöreskog's (1971) composite reliability as a replacement, since the items are weighted based on the latent variable indicators' individual loadings, thus providing higher reliability than Cronbach's alpha (Hair, et al., 2019). The modern view suggests that instead of using Cronbach's alpha, which can provide excessively conservative reliability values, while the composite reliability can be too extreme. In this scenario, it is recommended to consider alternative measures, such as "rho (ρ_A)" which normally fits between Cronbach's alpha and the composite reliability (Hair et al., 2019; Wong, 2019).

Generally speaking, Cronbach's alpha values between 0.7 – 0.9, composite reliability values between 0.70 – 0.9 (definitely not above 0.95), and rho (ρ_A) values of 0.7 or higher demonstrate good reliability (Bagozzi & Yi, 1988; Cronbach, 1951; Dijkstra & Henseler, 2015). The overall internal consistency results reveal (see Table 6.4) that all the constructs, as measured using Cronbach's alpha, rho(ρ_A) and composite reliability, are well above the widely recommended cut-off thresholds of 0.70, with the exception of the *extendibility* construct's composite reliability, which was found to be slightly above the ideal threshold (0.90) but at the same time below the problematic threshold of 0.95, thus representing overall good internal consistency reliability.

Table 6. 4 *Internal Consistency Reliability*

Latent Variables	Cronbach's Alpha (α)	Dijkstra-Henseler's rho (ρ_A)	Composite Reliability
Accessibility	0.880	0.887	0.909
Affordability	0.792	0.816	0.864
Authenticity	0.816	0.821	0.891
Extendibility	0.876	0.901	0.923
Prospects	0.801	0.834	0.869

6.6.3 Convergent Validity

Having established indicator reliability and internal consistency reliability, the next step was to assess the convergent validity of the reflective measurement models. The purpose for assessing convergent validity is to establish that the measurements that should be related to the constructs are indeed related to them. The convergent validity of a construct is evaluated by measuring the Average Variance Extracted (AVE) values. An acceptable AVE value is at least 0.5, which means that the construct explains, at minimum, 50 per cent of the variance of its corresponding items (Bagozzi & Yi, 1988; Hair et al., 2019). As seen in Table 6.5, that the AVE values of *accessibility* (0.625), *affordability* (0.614), *authenticity* (0.731), *extendibility* (0.800) and *prospects* (0.626) are all well above the acceptable level of 0.5. Therefore, the measures of all five constructs confirm the convergent validity.

Table 6. 5 *Convergent Validity*

Construct	**Average Variance Extracted (AVE)**
Accessibility	0.625
Affordability	0.614
Authenticity	0.731
Extendibility	0.801
Prospects	0.627

6.6.4 Discriminant Validity

The fourth step is to assess the discriminant validity. The main purpose of evaluating discriminant validity is to establish that the constructs are truly distinct from each other by empirical standards (Hair et el., 2017; Urbach & Ahlemann, 2010). Therefore, establishing discriminant validity designates that the manifest latent variable is not only unique but also captures phenomena not signified by other concepts (Hair et al., 2017; Henseler et al., 2015). There are three methods used to evaluate discriminant validity — indicator cross-loadings, the Fornell–Larcker Criterion, and the heterotrait-monotrait (HTMT) ratio of correlation (Hair et al., 2014; 2017; 2019).

At first, the indicator cross-loading method was applied to measure the discriminant validity. By following the cross-loading method each indicator's outer loadings on the associated construct was compared and ensured that an indicator's outer loading had higher values on their associated construct. The results presented in Table 6.6 show the cross-loadings of all the constructs.

It can be seen that all the items that measure a particular construct have greater values on their associated latent variables and low correlations with other constructs, confirming the discriminant validity of the constructs.

Table 6. 6 *Indicator Items' Cross-Loading*

Items	Accessibility	Affordability	Authenticity	Extendibility	Prospects
access_1	**0.738**	0.425	0.265	0.475	0.327
access_2	**0.739**	0.263	0.308	0.356	0.376
access_3	**0.883**	0.361	0.242	0.496	0.313
access_4	**0.826**	0.259	0.188	0.353	0.355
access_5	**0.775**	0.247	0.294	0.307	0.266
access_6	**0.771**	0.245	0.222	0.334	0.263
afford_1	0.330	**0.845**	0.361	0.643	0.288
afford_2	0.329	**0.824**	0.278	0.621	0.267
afford_3	0.327	**0.753**	0.344	0.569	0.196
afford_4	0.228	**0.706**	0.360	0.448	0.199
authen_1	0.274	0.344	**0.874**	0.392	0.482
authen_2	0.220	0.423	**0.883**	0.334	0.380
authen_3	0.310	0.327	**0.806**	0.244	0.499
extend_1	0.371	0.668	0.339	**0.841**	0.241
extend_2	0.495	0.663	0.308	**0.911**	0.384
extend_3	0.463	0.649	0.373	**0.929**	0.320
prosp_1	0.155	0.039	0.389	0.036	**0.695**
prosp_2	0.356	0.327	0.286	0.368	**0.753**
prosp_3	0.371	0.291	0.514	0.305	**0.886**
prosp_4	0.368	0.289	0.482	0.381	**0.820**

Discriminant validity is also assessed using the most commonly used Fornell-Larcker metric. Fornell-Larcker criterion suggests that if the square root of the AVE of the latent variable is higher than its correlation with any other construct, then discriminant validity is considered to be established (Andres, 2011). In Table 6.7, the results according to the Fornell–Larcker criterion indicate that the square root value of each construct's AVE (**bold**) is greater than its correlations with other constructs, thus indicating the attainment of discriminant validity.

Table 6. 7 *Discriminant Validity (Fornell–Larcker Criterion)*

Latent Variables	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility	**0.791**				
Affordability	0.389	**0.784**			
Authenticity	0.320	0.422	**0.855**		
Extendibility	0.501	0.734	0.377	**0.895**	
Prospects	0.407	0.312	0.539	0.363	**0.791**

Although the Fornell–Larcker Criterion and indicator cross-loadings have been recommended frequently (e.g., Chin, 1998; Gefen & Straub, 2005; Hulland, 1999; Lee, et al., 2011; Sosik, Kahai, & Piovoso, 2009) over the last two or three decades, recent research indicates that neither method reliably detects discriminant validity issues (Henseler, Ringle, & Sarstedt, 2015). For example, the cross-loadings method fails to outline a lack of discriminant validity when two latent variables are completely correlated, while the Fornell–Larcker method does not fit well in cases where the item loadings of the latent variable under analysis differ only slightly, for example all the indicator loadings vary between 0.6 – 0.85 (Hair et al., 2017; Henseler et al., 2015).

As a remedy, Henseler et al. (2015) proposed an alternative criterion for evaluating discriminant validity called the heterotrait-monotrait (HTMT) ratio of correlations. Although there is still no universally agreed threshold for HTMT values, some researchers for example Kline (2011) suggests a cut off value of 0.85, whereas Gold, Malhotra and Segars (2001) recommend a threshold value of 0.90. In our case, as seen in Table 6.8, the maximum HTMT value is 0.87, which is between the conservative value of HTMT_85 and the liberal value of HTMT_90, thus indicating satisfactory discriminant validity for this study.

Table 6. 8 *Discriminant Validity (HTMT)*

Latent Variables	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility					
Affordability	0.453				
Authenticity	0.370	0.537			
Extendibility	0.551	0.876	0.45		
Prospects	0.468	0.367	0.641	0.419	

Besides examining the HTMT ratios, the HTMT inference criterion has also been assessed to ensure that the lower and upper bounds of the confidence interval (CI) of HTMT does not contain a value of 1 on any construct. The results computed from 5,000 bootstrap samples revealed that neither of the confidence intervals included a value of 1. For example, the lower and upper bounds of the confidence interval of HTMT for the relationship between *extendibility* and *affordability* or *prospects* and *authenticity* were 0.775, 0.95, 0.456 and 0.78 respectively. This established that at the HTMT liberal threshold of 0.90, which already supported discriminant validity, the confidence interval results of the HTMT criterion as shown in Table 6.9 also substantiated the discriminant validity of the constructs.

Table 6. 9 *Confidence Intervals for HTMT*

Relationship between constructs	Original Sample (O)	Sample Mean (M)	Bias	2.50%	97.50%
Extendibility -> Affordability	0.876	0.877	0.001	0.775	0.959
Prospects -> Authenticity	0.641	0.642	0	0.456	0.780
Extendibility -> Accessibility	0.551	0.553	0.002	0.348	0.709
Authenticity -> Affordability	0.537	0.539	0.002	0.306	0.738
Prospects -> Accessibility	0.468	0.479	0.012	0.308	0.610
Affordability_ -> Accessibility	0.453	0.458	0.005	0.244	0.638
Extendibility -> Authenticity	0.450	0.452	0.002	0.224	0.637
Prospects -> Extendibility	0.419	0.432	0.013	0.257	0.572
Prospects -> Affordability	0.367	0.398	0.031	0.188	0.525
Authenticity -> Accessibility	0.370	0.379	0.009	0.179	0.564

All the results of the measurement models are summarised in Table 6.10.

Table 6. 10 *Results Summary of Measurement Models*

Latent Variable	Items	Loadings	Convergent Validity	Internal Consistency Reliability			Discriminant Validity
			AVE	CR	rho (ρ_A)	Cronbach's alpha	
		>0.70	>0.50	0.60-0.90	>0.70	0.60-0.90	HTML confidence interval does not include 1
Accessibility	access_1	0.738	0.625	0.909	0.887	0.880	Yes
	access_2	0.739					
	access_3	0.883					
	access_4	0.826					
	access_5	0.775					
	access_6	0.771					
Affordability	afford_1	0.845	0.614	0.864	0.816	0.792	Yes
	afford_2	0.824					
	afford_3	0.753					
	afford_4	0.706					
Authenticity	authen_1	0.874	0.731	0.891	0.821	0.816	Yes
	authen_2	0.883					
	authen_3	0.806					
Extendibility	extend_1	0.841	0.801	0.923	0.901	0.876	Yes
	extend_2	0.911					
	extend_3	0.929					
Prospects	prosp_1	0.695	0.627	0.869	0.834	0.801	Yes
	prosp_2	0.753					
	prosp_3	0.886					
	prosp_4	0.820					

6.7 Summary

This chapter reviewed the background of the structural equation modelling (SEM) approach and justified the use of partial least squares structural equation modelling (PLS-SEM) in this study. Utilising a two-stage process to assess the research model, this chapter also evaluated the first part by gauging the internal reliability of the measurement models, such as composite reliability, Cronbach's alpha, and rho (ρ_A), using SmartPLS 3.

The internal consistency reliability [i.e., Cronbach's alpha (α) and rho (ρ_A)] of all constructs has been confirmed since the widely recommended cut-off threshold of 0.70 was met. The composite reliability of all constructs was also under the cut-off value of 0.90, with the exception of the *extendibility* construct value of 0.923, which is slightly above the ideal threshold (0.90). In addition, the chapter has also confirmed the convergent validity of all constructs – *accessibility* (0.625), *affordability* (0.614), *authenticity* (0.731), *extendibility* (0.801) and *prospects* (0.627) – against the acceptable AVE value of 0.5.

This chapter further assessed discriminant validity through the cross-loadings approach, the Fornell–Larcker criterion and the most recent criterion, the heterotrait-monotrait (HTMT) ratio of correlations. All three measures indicated satisfactory discriminant validity for the research model.

In sum, chapter 6 has established the reliability and validity of the items and constructs, and provided solid support for their suitability for inclusion in the research model. The satisfactory outcomes of the measurement models have met the required conditions for assessing the relationships in the structural model, and advanced

analysis, such as mediation and moderation analysis. The following chapter will evaluate the second stage of PLS-SEM results i.e., hypothesised relationships in the structural model, including mediation and multi-group analysis in order to achieve the ultimate goal of this study.

Chapter 7: Assessing PLS-SEM Results (Part II)

7.1 Introduction

After having evaluated the reliability and validity of the constructs' measures in the previous chapter, this chapter moves to the next stage of the PLS-SEM analysis. It assesses the PLS-SEM results and examines the collinearity issues, the significance of the hypothesised relationships (H_1 – H_4) and the coefficient of determination (R^2). This chapter also assesses the effect size (f^2), predictive relevance (Q^2), mediation (H_5), multi-group analysis (H_6 and H_7) and the importance-performance matrix analysis (IPMA).

7.2 Collinearity Assessment

Prior to evaluating the structural model, it is important to examine the collinearity issues to ensure that the two hypothesised variables are not causally related and measure the same construct (Hair, et al., 2017; Wong, 2019). Collinearity is measured by variance inflation factor values (VIF). In general, a VIF value of 5 or above indicates probable (i.e., critical) collinearity issues among the latent variables, whereas VIF values of 3-5 indicate possible collinearity issues, while values of 3 or lower are considered ideal (Hair et al., 2019). As shown in Table 7.1 below, all VIF values are well below the ideal threshold, indicating no collinearity issues in the data.

Table 7. 1 *Collinearity Assessment*

	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility					1.372
Affordability					2.29
Authenticity					1.264
Extendibility	1				2.466
Prospects					

7.3 Path Coefficients (β)

Once collinearity has been shown not to be an issue, the next step is to evaluate the path coefficients, which represent the significance of the hypothesised relationships among the latent variables. A bootstrapping procedure with 5,000 subsamples was carried out to test the direct path coefficients (β) and proposed hypotheses. The bootstrapping[9] procedure enabled the computation of empirical *p* values and *t* values for each path coefficient of the structural model. The results in Table 7.2 show the path coefficient (β) of the relevant constructs along with the level of significance (*p* value).

Table 7. 2 *Hypothesis Testing: Bootstrapping Results for Direct Relationships*

Hypothesis	Relationships	Beta (β)	T Value	P Value	95% Confidence Intervals	Decisions
H_1	Accessibility -> Prospects	0.224	3.277*	0.001	[0.088 -0.353]	Supported
H_2	Affordability -> Prospects	-0.052	0.480	0.631	[-0.298-0.132]	Not supported
H_3	Authenticity -> Prospects	0.444	5.287*	0.00**	[0.268 -0.599]	Supported
H_4	Extendibility -> Accessibility	0.501	6.466*	0.00**	[0.327-0.632]	Supported

Notes: Two tailed test; * t>1.96; ** P<0.001

The results revealed that *accessibility* (β = 0.224, *t*-value = 3.277) and *authenticity* (β = 0.444, *t*-value = 5.287; *p* <0.001) have a significantly direct effect on the *prospects* for the Islamic home finance industry, thus supporting Hypotheses 1 and 3. The results also revealed that *extendibility* (β = 0.501, *t*-value = 6.466, p <0.001) has a significant effect on *accessibility*, thereby substantiating Hypothesis 4. However, the bootstrapping results did not support the hypothesised relationship between *affordability* and *prospects* (β = -0.052, *t*-value = 0.480) indicating no significant direct effect of *affordability* on the *prospects for Islamic home finance*. The PLS structural

[9] "Bootstrapping is a resampling technique that draws a large number of sub-samples from the original data (with replacement) and estimates models or each subsample. It is used to determine standard errors of coefficients to assess their statistical significance without relying on distributional assumptions" (Hair et al., 2017, p. 313)

model results also indicate that *authenticity* (0.444) has the strongest effect on the *prospects* followed by *accessibility* (0.224), whereas *extendibility* has a strong effect (0.501) on the *accessibility* construct. The above results are visually displayed in Figure 7.1 below, where paths have been highlighted using relative *t* values, vividly representing the level of the significance of the path relationships across constructs.

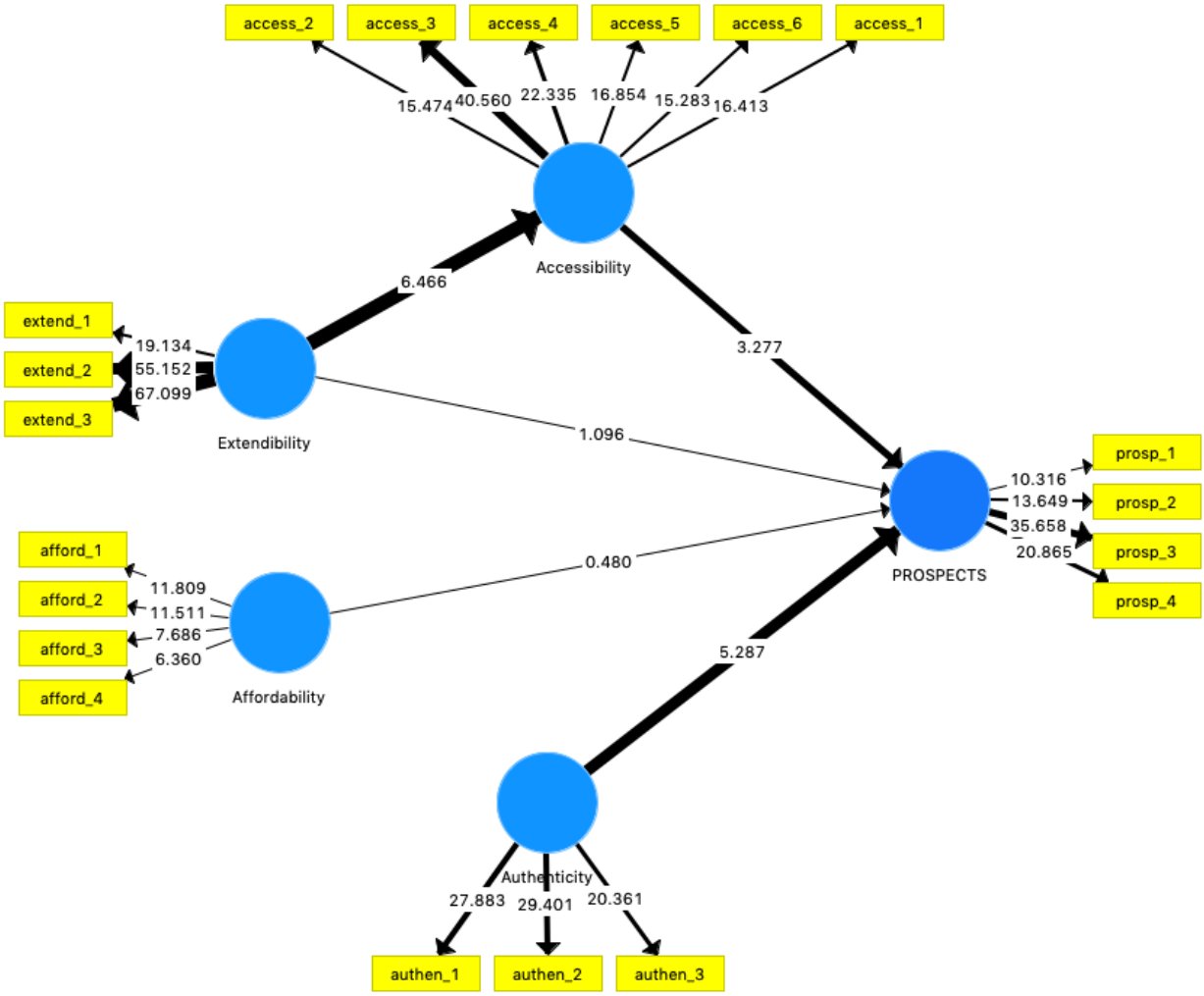

Figure 7. 1 *Graphical Representation of the Path Coefficients*

7.4 Coefficient of Determination (R^2)

Evaluating the coefficient of determination (R^2) is a major part of the structural model and it is a measure of the model's predictive accuracy or explanatory power (Hair et al., 2017; Wong, 2019). The coefficient of determination (R^2) signifies the combined

effect of all exogenous constructs on the endogenous construct (Henseler, Ringle, & Sinkovics, 2009).

In this research, *prospects* (for the Islamic home finance industry in the UK) is the main construct of interest. There is no universally agreed rule of thumb for an acceptable R^2 value as various studies have proposed different cut-off R^2 values. For example, according to Falk and Miller (1992), a minimum R^2 value of 0.10 or above is considered adequate, whereas Cohen (1988) classifies thresholds of 0.02, 0.13 and 0.26 as weak, moderate and strong coefficients of determination respectively. In contrast, Chin (1998) suggests R^2 values of 0.19, 0.33 and 0.67 as weak, moderate and substantial levels of predictive accuracy. Meanwhile, Hair et al. (2017) point out that the value of R^2 depends on the research discipline and further consider R^2 values of 0.20 high in disciplines such as consumer behaviour or social science.

Considering the discipline of the study and following the most widely used Cohen's (1988) R^2 values, the overall R^2 value (0.358) of the main construct of interest, *prospects* (for the Islamic home finance industry), is found to have a high level of explanatory power or predictive accuracy (see Figure 7.2). This suggests that the four constructs *authenticity*, *affordability*, *extendibility* and *accessibility* together explain 35.8% of the variance of the endogenous construct *prospects* for Islamic home finance in the UK.

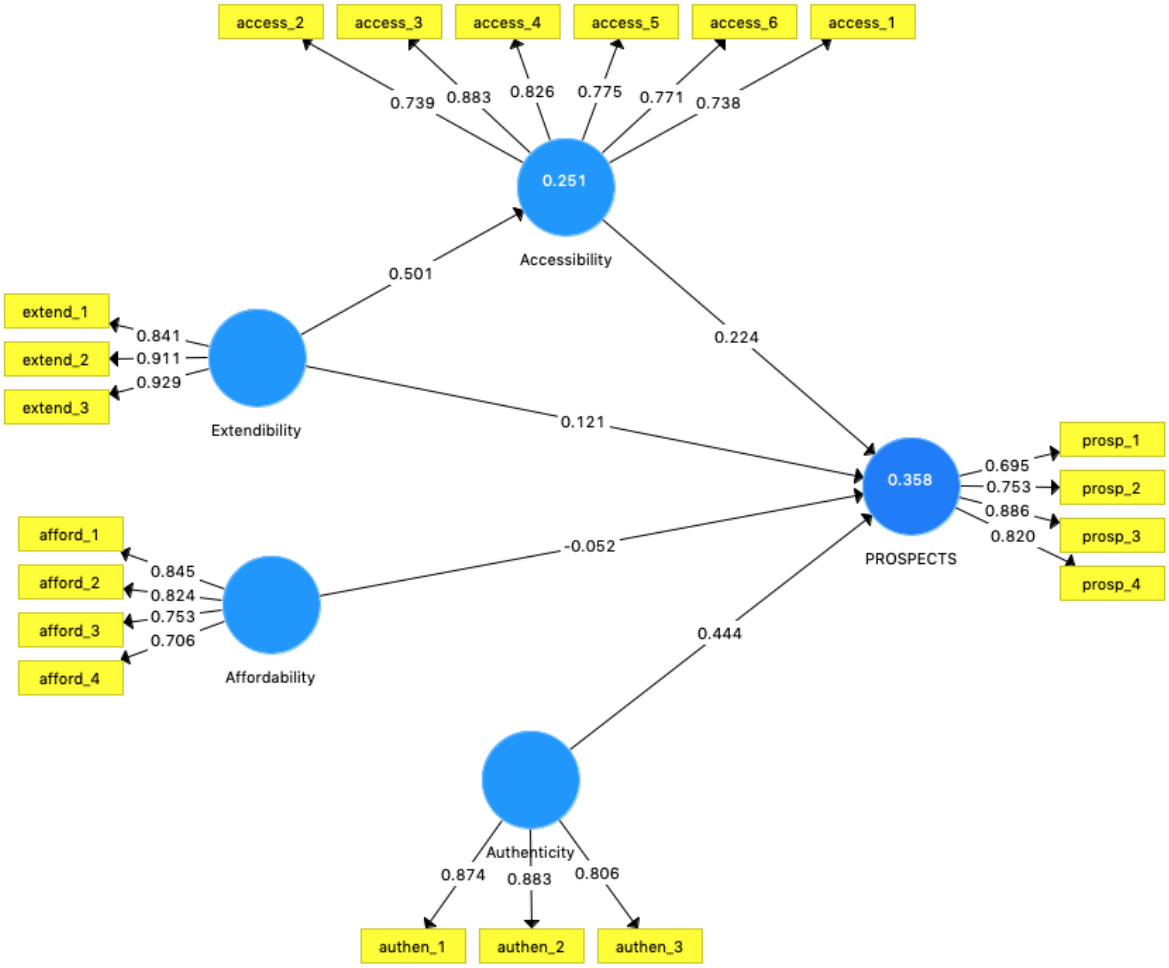

Figure 7. 2 *PLS Path Model Estimation of R^2*

7.5 Effect Size (f^2)

In addition to evaluating R^2 (the model's predictive accuracy) and the statistical significance of the structural model relationships (path coefficients), it is also important to measure the relevant impact of a specific predictor construct on the endogenous construct (Rahi, 2017). Although a *p* value shows the existence of effect, it does not tell us the size of the effect to determine whether it is, in fact, meaningful or not. Therefore, assessing the meaningfulness of the effect is a key element of evaluating the structural model.

The PLS-SEM algorithm was executed to determine the effect size. According to Cohen (1998), effect size values of 0.02, 0.15 and 0.35 are considered small, medium

and substantial respectively. As shown in Table 7.3, it can be seen that *accessibility* has a small effect (0.057) on the *prospects*, whereas *affordability* has almost no effect (0.002) on the *prospects*. In contrast, *extendibility* and *authenticity* have fairly large effect sizes (f^2) on the endogenous variables such as *accessibility* and *prospects,* i.e., 0.336 and 0.243 respectively.

Table 7. 3 *Effect Size f^2*

	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility					0.057
Affordability					0.002
Authenticity					0.243
Extendibility	0.336				0.009

Note: f^2 0.02 = small; 0.15 = medium; 0.35 = substantial

7.6 Predictive Relevance (Q^2)

Apart from assessing the significance of the R^2 values, and effect size (f^2), it is also important to assess the predictive power or relevance (Q^2) of the research model considering the main purpose of using PLS-SEM is prediction. This measure assesses whether the model accurately predicts data not used in the estimation of the model parameters (Hair et al., 2017). The predictive relevance Q^2 of the research model has been assessed by applying the blindfolding[10] procedure.

In a structural model, Q^2 values greater than 0 for a certain endogenous reflective latent construct ensure that the model demonstrates good predictive power (Chin, 1998; Henseler et al., 2009). The results of the blindfolding procedure indicate (see Table 7.4) that the Q^2 value is larger than 0, thus providing clear support for the model's predictive power.

[10] "Blindfolding is a sample reuse technique that (systematically) omits part of the data matrix and uses the model estimates to predict the omitted data." (Hair et al., 2017, P. 312).

Table 7. 4 *Coefficient of Determination (R^2) and Predictive Relevance (Q^2)*

Endogenous Latent Variable	R2 Value	Q2 Value
Accessibility	0.251	0.147
Prospects	0.358	0.209

7.7 q^2 Effect Size

The final step in structural model evaluation involves an assessment of the q^2 effect size. According to Hair et al., (2017) “this is a measure to assess the relative predictive relevance of a predictor construct on an endogenous construct” (p. 325). This can be achieved by examining the q^2 effect sizes, derived from the Q^2 value. Following Cohen’s (1998) guidelines (see note below), it can be said that, with the exception of the *affordability* variable, other exogenous constructs have small to medium q^2 effect sizes on the endogenous variables as shown in Table 7.5 below.

Table 7. 5 *Results of q^2 Effect Sizes*

Path Relationships	**q2**
Accessibility -> Prospects	0.028
Affordability -> Prospects	0.001
Authenticity -> Prospects	0.111
Extendibility -> Accessibility	0.147

Note: q^2 0.02 small; 0.15 medium; 0.35 large

To provide an overall picture of the results, all the above tests have been tabulated in Table 7.6 below.

Table 7. 6 *Direct Relationships for Hypothesis Testing*

Hypothesis	Relationships	Beta (β)	T Value	P Value	95% Confidence Intervals	Decision		
							f^2	**q^2**
H_1	Accessibility -> Prospects	0.224	3.277*	0.001	[0.088 -0.353]	Supported	0.057	0.028
H_2	Affordability -> Prospects	-0.052	0.48	0.631	[-0.298-0.132]	Not supported	0.002	0.001
H_3	Authenticity -> Prospects	0.444	5.287*	0.00**	[0.268 -0.599]	Supported	0.243	0.111
H_4	Extendibility -> Accessibility	0.501	6.466*	0.00**	[0.327-0.632]	Supported	0.336	0.147

***p<0.001*
** t> 1.96*

- *R^2 (Accessibility 0.251; Prospects = 0.358)*
- *R^2 values: 0.02, 0.13 and 0.26 considered as weak, moderate and substantial respectively (Cohen, 1988)*
- *Q^2 (Accessibility 0.147; Prospects = 0.209) 0.02 $\leq$ Q^2 < 0.15 = weak predictive power; 0.15 $\leq$ Q^2 < 0.35 = moderate predictive power; Q^2 $\geq$ 0.35 strong predictive power*
- *Effect size (f^2) impact indicators are according to Cohen (1988), f^2 values: 0.35 (large), 0.15 (medium) and 0.02 (small)*
- *q^2 effect size; 0.02 small; 0.15 medium; 0.35 large*

7.8 Mediation Analysis

The above analysis involved testing the direct relationships between H_1 – H_4. This section focuses on analysing the indirect effect, Hypothesis 5 - *the impact of extendibility on the prospects for Islamic home finance via accessibility.* Firstly, an indirect effect *extendibility* via *accessibility* to *prospects* was tested which is the product of the path coefficients from *extendibility* to *accessibility* and from *accessibility* to *prospects* (mediation path). In order to test the mediation path, a two-step approach was followed by applying a bootstrapping procedure. The bootstrapping results gave an empirical *t*-value of 2.763 for *the* indirect effect (0.117) of the *extendibility* → prospects relationship yielding a *p* value of 0.006 (significant).

In the next step, the significance of the direct effect from *extendibility* to *prospects* was tested. As shown in Table 7.7, the relationship between *extendibility* to *prospects* was found to be statistically non-significant (*t* = 1.096). Following the mediation analysis, it can be concluded that *accessibly* fully mediates the relationship between *extendibility* and *prospects*, which means only the indirect effect via the mediator, *accessibility*, exists. In other words, the effect of the variable *extendibility* to *prospects* is completely transmitted through *accessibility*, thus supporting H_5.

Table 7. 7 *Significance Analysis of the Direct and Indirect Effects*

	Relationship	Direct Effect	T Value	P Value	95% CI	Significance (p<0.05)?	Decision
H_5	Extendibility -> Prospects	0.121	1.096	0.273	[-0.073-0.368]	No	Supported^
	Extendibility -> Prospects	**Indirect Effect**	**T Value**	**P Value**	**95% CI**	**Significance (p<0.05)?**	
		0.117	2.763*	0.006	[0.045-0.204]	Yes	

*Two tailed test, * t> 1.96*

^ Indirect-only mediation or full mediation: the indirect effect is significant, but the direct effect is not significant.

7.9 Multi-Group Analysis

So far, the above analysis has focused on the direct and indirect effects as well as the effect size, predictive accuracy and predictive relevance of the research model. This section moves a step further and attempts to test the categorical moderating effect of religion and experience on the prospects for Islamic home finance.

In general, the relationships in PLS path models imply that exogenous constructs explain endogenous constructs without any systematic influences of other variables (Hair, et al., 2018). In many cases, particularly in the current study, this assumption does not hold given the fact that participants (mortgage brokers) tend to be heterogeneous in their views and evaluations of the constructs. Therefore, pooling data as a single set of population can potentially fail to determine whether there are substantial differences between two or more subgroups of data (Hair et al., 2017). Failing to consider or disregarding heterogeneity in data structure could potentially lead to false or incorrect conclusions in terms of model relationships (Becker, et al., 2013; Hair et al., 2017).

As evident from the proposed conceptual model (and hypotheses) of this study, one of the key objectives of this study is to examine the impact of religion and experience (as a moderator) among the structural path relationships. Put simply, the research assumed that there would be a statistically significant difference in the path coefficients between Muslim and non-Muslim participants. In the same fashion, it was also hypothesised that there would be a statistically significant difference in path relationships between those experienced (i.e., more than 10 years) vs. those less experienced (> 10 years) in the industry.

Multi-group analysis (PLS-MGA) was conducted through the application of a parametric approach using religion and experience as categorical moderating variables. Multi-group analysis in PLS-SEM is a technique that can test predefined data groups to assess whether there are significant differences in the estimation of group-specific parameters (Henseler & Chin, 2010; Sarstedt et al., 2014). Conducting PLS-MGA serves many purposes. Firstly, it provides a more complete picture of the impact of the moderator on the results of the analysis as the emphasis shifts from examining its effect on a particular model relationship to examining its effect on all model relationships (Sarstedt et al., 2011). Secondly, comparing group differences will not only provide a new theoretical insight into the field of study by uncovering more accurate differences between the groups (i.e., Group A = high vs. low experience; Group B = Muslim vs. non-Muslims), but PLS-MGA will also fill the gap in the existing literature. From a practical point of view, the outcome of the accurate assessments will help the management of Islamic banks to align their respective marketing strategy accordingly. The following steps are taken to carry out the multi-group analysis.

7.9.1 Generating Data Groups

Prior to executing multi-group analysis in PLS-SEM, two sets of groups were generated from the dataset. The purpose of this step was to statistically evaluate the differences between the group-specific path coefficients resulting from two sets of subsamples; Muslims vs. non-Muslims and high vs. low experience group. This procedure enabled the observed heterogeneity in the research model's relationships to be assessed. The two sets of subpopulations (Muslims vs. non-Muslims and high vs. low experience) met the minimum sample criteria (see Table 7.8).

Table 7. 8 *Data Groups*

Muslims	65
Non-Muslims	79
Experience > 10 years	76
Experience < 10 years	68

Before engaging in a multi-group analysis, it was ensured that the number of participants in each data group met the rules of thumb for minimum sample size threshold. As discussed in Chapter 4, according to the 10 times sample size rule, the highest number of arrows pointing at a latent variable (*accessibility*) is six; therefore, this study needed at least 6 x 10 = 60 observations per group. Similarly, following the more rigorous sample size calculation based on Cohen's (1988) power table, a minimum sample size of 55 per group was required to draw concrete analysis assuming a medium effect size; $f^2 = 0.25$, statistical power of 0.80 and significance level of 0.05. Therefore, based on these rules, the group-specific sample sizes, as mentioned in Table 7.8, were considered sufficient for PLS multi-group analysis.

Although, there is a slight difference in sample size between the both sets of groups, from statistical point of view, two subpopulations do not need to be precisely the same size as long as one group is not 50 percent greater than the other group, otherwise the discrepancy is likely to misrepresent the outcome of the statistical test (Hair et al., 2018).

7.9.2 Test for Invariance

The next step is to establish the invariance of the measurements. Measurement invariance is also referred to as measurement equivalence and is a prerequisite and a key issue that must be addressed in multi-group PLS-SEM analyses (Henseler et al., 2016; Putnick & Bornstein, 2016). Failure to assess the measurement invariance first, means that PLS-MGA can be questionable, biased or misleading (Hult et al.,

2008; Matthews, 2017) as measurement invariance evaluates the psychometric basis for the comparison of latent factor means (Putnick & Bornstein, 2016; Van De Schoot, et al., 2015). Therefore, the key purpose for establishing the invariance of the measurements is to assure that the differences in the estimates between group-specific models do not arise from distinctive content and the insinuations of the constructs across groups (Henseler et al., 2016). For example, any differences in the structural relationships between constructs may emerge from different interpretations that the alternate groups' participants assign to the concept rather than actual variations in the structural relationships (Hair et al., 2017; 2018). Possible reasons for such variations may emerge, for example:

(a) *participants from different cultural backgrounds may perceive the proposed measure in culturally different ways;*

(b) *gender, race or other human differences may cause participants to react to measures in specifically different ways; and*

(c) *participants may choose the provided scale options in different ways (e.g., some will select extreme responses while others will adopt a completely opposite viewpoint)* (Hair et al., 2017; 2018).

To test for measure invariance in PLS-SEM, the MICOM procedure is executed as recommended in the literature (i.e., Hair et al., 2017; 2018; Henseler et al., 2016; Matthews, 2017). The MICOM procedure consisted of three steps:

(1) configural invariance;
(2) compositional invariance; and
(3) the equality of composite mean values and variances.

All three MICOM steps are hierarchically interrelated, as shown in Figure 7.3. It is recommended to only continue research to the next step, once the previous step's test supports measurement invariance (Henseler et al., 2016). These steps were executed sequentially and discussed in the following sections.

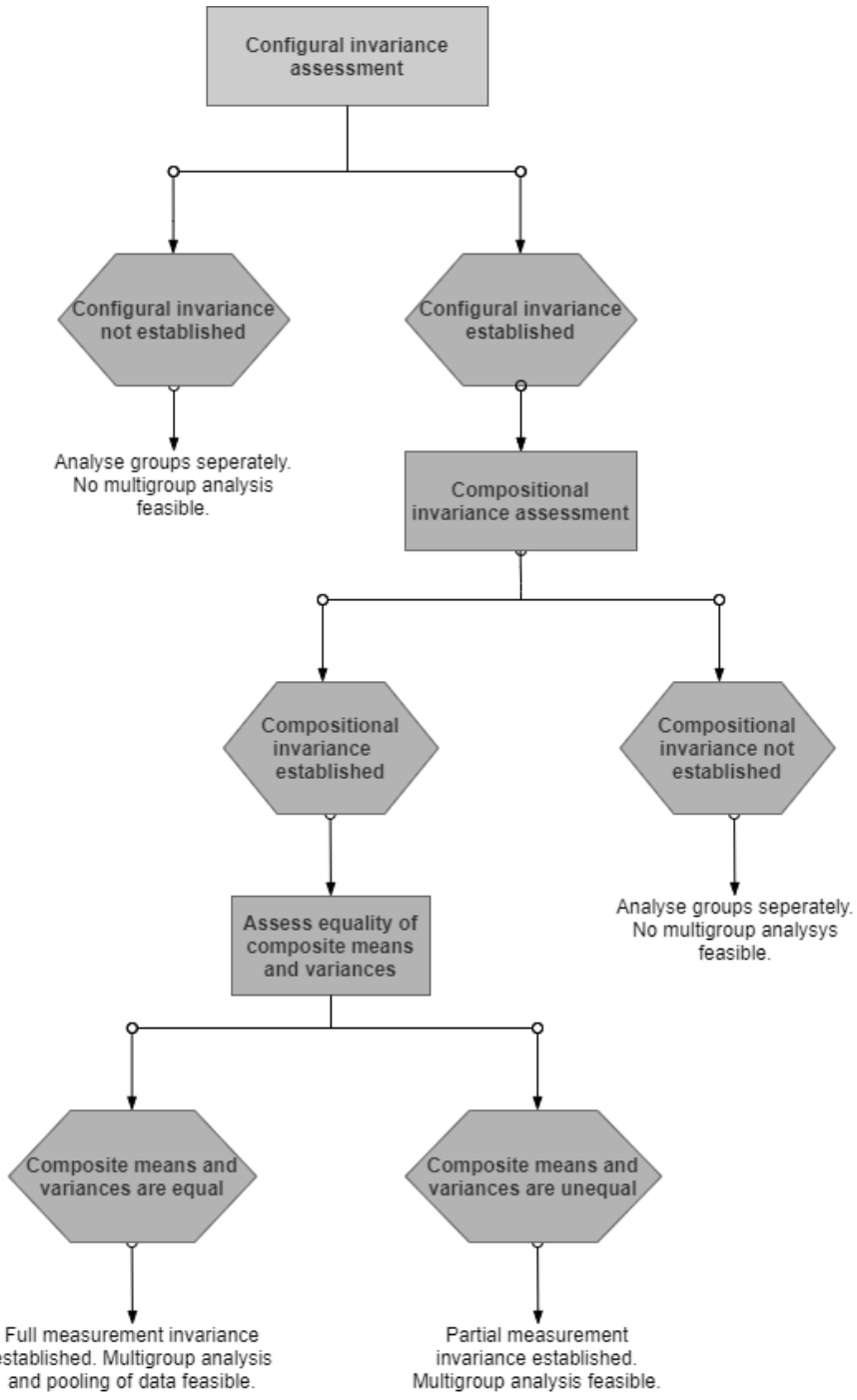

Figure 7. 3 *The MICOM Procedure*

Source: Hair et al. (2018)

7.9.3 Configural Invariance (Step 1)

Establishing configural invariance consists of a qualitative assessment of the composites' specification across all the groups and involves the fulfilment of the following criteria (Henseler et al. 2016):

(a) *identical indicators per measurement model;*

(b) *identical data treatment;* and

(c) *identical algorithm settings or optimisation criteria.*

In order to comply with the above conditions, it was ensured that each measurement model employed the similar items across all data groups and all measurement items were incorporated in the latent variables across all groups. Similarly, all indicators' data were treated identically across all groups including the coding, all outliers were detected and treated in a similar manner. Finally, all algorithm settings and optimisation criteria were applied identically to verify that differences in the group-specific model estimate do not arise from different algorithm settings.

After having ensured the configural invariance, the study proceeded to the next step: compositional invariance.

7.9.4 Compositional Invariance (Step 2)

The second step of the MICOM process involves examining whether a composite is formed equally and the composite scores differ across groups (Hair et al., 2017; Henseler et al., 2016). For this purpose, a permutation test in Smart-PLS was carried out to statistically assess the presence of compositional invariance. The permutation test was set at 5,000, two-tailed and at the significance level of 0.05. The

compositional invariance assessment results of the MICOM permutation test are reported in Tables 7.9 and 7.10.

A permutation test is a multi-group analysis variant which assesses and compares the composite scores of two groups to establish whether the correlation *"c"* varies substantially from the empirical distribution of c_u (denoted by the 5.00% quantile) (Hair et al., 2017; 2018, Henseler et al., 2016; Matthews; 2017). In simple terms, compositional invariance requires that the correlation c is equal to 1 (Henseler et al., 2016; Hair et al., 2018). If the findings suggest that compositional invariance is problematic for one or more of the latent variables, the relevant indicators can then be excluded from the corresponding constructs in an attempt to achieve invariance (Matthews, 2017).

The MICOM results (see Tables 7.9 and 7.10) suggest the establishment of the compositional invariance across all constructs in both groups (e.g., Group A = high vs. low experience and Group B = Muslim vs. non-Muslim) as all original correlations are found to be equal to or larger than the quantile correlations of 5.0% as visible in the 5% column. In addition, *p* values higher than 0.05 also support this finding, meaning the correlation is not significantly lower than 1.

For example, the original correlation values of *accessibility* in Group A (high experience vs. low experience) and Group B (Muslim vs. Non-Muslim) have been found to be 0.999 and 0.994 respectively. These results are within the corresponding permutation-based confidence intervals with lower boundaries of 0.982 and 0.983. Similarly, *accessibility's p* values of 0.895 and 0.280 respectively, as shown in Permutation p-Values' column, are considerably larger than 0.05. Hence, the original correlation of *accessibility* (in both sets of groups) is not significantly different from 1,

which provides evidence that the compositional invariance for the *accessibility* construct has been established.

In the same fashion, from results shown in Tables 7.9 and 7.10, it can be substantiated that compositional invariance has been established for all multi-item constructs in the model, hence MICOM's second step (i.e., permutation test) supports compositional invariance. This also means that partial measurement invariance has been established. This allows us to proceed with comparing the standardised path coefficients across the groups by applying multi-group analysis with confidence.

Table 7. 9 *Step 2: Compositional Invariance Group A (High vs. Low Experience)*

	Original Correlation	Correlation Permutation Mean	5.00%	Permutation *p*-Values
Accessibility	0.999	0.995	0.982	0.895
Affordability	0.969	0.964	0.915	0.318
Authenticity	0.991	0.995	0.981	0.181
Extendibility	0.997	0.998	0.993	0.187
Prospects	0.998	0.992	0.977	0.825

Table 7. 10 *Step 2: Compositional Invariance (Group B = Muslim vs. Non-Muslim)*

	Original Correlation	Correlation Permutation Mean	5.00%	Permutation *p*-Values
Accessibility	0.994	0.994	0.983	0.280
Affordability	0.995	0.964	0.913	0.902
Authenticity	1.000	0.995	0.982	0.885
Extendibility	1.000	0.998	0.993	0.952
Prospects	0.990	0.992	0.976	0.251

To check whether even full measurement invariance holds, the next step, full measurement invariance (composite equality), is conducted in PLS-SEM.

7.9.5 Equality of Composite (Step 3)

This step involves assessing the composites' (constructs) equality of mean values and variances across the groups (Hair et al., 2018; Henseler et al., 2016). In order to establish whether the full invariance has been achieved, the composite means and

variances were examined in Step 3 of the MICOM procedure in SmartPLS. If there are no significant differences in mean values and (logarithms of) variances across the groups, then full measurement invariance is claimed to be established (Hair et al., 2018; Henseler et al., 2016)

As shown in Tables 7.11- 7.13, the first part of the tables contains information about means, whereas the second parts show information about the (logarithms of) variance.

By looking at the mean differences in both sets of groups and comparing the mean original difference to the lower (2.5%) and upper (97.5%) boundaries of the 95% confidence interval of the scores' mean differences, it can be seen that, in Group A (i.e. high exp vs low exp), the original difference in **mean values** falls within the range of the lower and upper boundaries. For example, for *authenticity*, the original difference in mean values is -0.028, which is within the corresponding confidence interval with a lower boundary of -0.353 and upper boundary of 0.308. In addition, Permutation *p* -Values (0.867) further supports this finding for *authenticity* and every other construct (i.e., *accessibility* = 0.862; *affordability* = 1.000; *extendibility* = 0.187; and *prospects* = 0.749) in the PLS path model as all *p* values are considerably larger than 0.05.

However, when comparing the analogous results for the composite variances (variance original difference) in Group A (experienced-based group) to the lower (2.5%) and upper (97.5%) confidence interval. It was noticed that the variance original difference value (0.521) for the construct *authenticity* did not fall within the 95% confidence interval (-0.428 - 0.484). Hence, the construct did not meet the guidelines for establishing full invariance.

The same procedure was conducted on Group B, Muslims vs. non-Muslims. The results revealed that the original difference in mean values (-0.678 and -0.669) for the *affordability* and *extendibility* constructs did not fall within the corresponding confidence intervals with a lower boundary of -0.308 and -0.318 and upper boundary of 0.339 and 0.335 respectively. In addition, for results for the composite variances (variance original difference) for the lower (2.5%) and upper (97.5%) confidence interval, the variance original difference value for the constructs *authenticity* (0.803) *and prospects* (0.413) also did not fall within the corresponding confidence intervals (see Tables 7.11 and 7.12). Hence, the partial measurement invariance has been established paving the way for the feasibility of multi-group analysis.

Table 7. 11 *Step 3: Equality of Composite (Mean Values & Variances): Group A = High Exp vs. Low Exp*

Constructs	Mean - Original Diff (high exp – low exp)	Mean - Permutation Mean Diff (high exp – low exp)	95% confidence interval	*Permutation* Values	Variance - Original Diff (high exp – low exp)	Variance - Permutation Mean Diff (high exp – low exp)	95% confidence interval	Permutation Values
Accessibility	0.024	-0.001	[-0.319 - 0.312]	0.862	-0.081	-0.003	[-0.557 - 0.478]	0.742
Affordability	0.000	-0.006	[-0.345 - 0.318]	1.000	0.433	0.021	[-0.498 - 0.533]	0.098
Authenticity	-0.028	-0.011	[-0.353 - 0.308]	0.867	**0.521**	0.012	[-0.428 - 0.484]	**0.022**
Extendibility	-0.216	-0.007	[-0.336 - 0.320]	0.187	-0.042	0.005	[-0.411 - 0.426]	0.849
Prospects	-0.057	-0.005	[-0.318 - 0.308]	0.749	-0.032	0.006	[-0.396 - 0.384]	0.872

Table 7. 12 *Step 3: Equality of Composite (Mean Values & Variances): Group B = Muslim vs. Non-Muslim*

Constructs	Mean - Original Diff (Muslim– NonMuslim)	Mean - Permutation Mean Diff (Muslim – NonMuslim	95% confidence interval	*Permutation* Values	Variance - Original Diff (Muslim – NonMuslim)	Variance - Permutation Mean Diff (Muslim – NonMuslim	95% confidence interval	Permutation Values
Accessibility	-0.021	0.002	[-0.315 - 0.345]	0.905	0.421	-0.004	[-0.549 - 0.510]	0.101
Affordability	**-0.678**	0.004	[**-0.308 - 0.339**]		0.404	-0.007	[-0.497 - 0.467]	0.104
Authenticity	0.069	-0.001	[-0.332 - 0.317]	0.662	**0.803**	-0.015	[-0.494 - 0.415]	
Extendibility	**-0.669**	0.001	[**-0.318 - 0.335**]		0.240	-0.015	[-0.428 - 0.402]	0.266
Prospects	0.188	-0.005	[-0.330 - 0.329]	0.268	**0.413**	-0.012	**[-0.394 - 0.393**]	0.038

Based on the invariance test using the MICOM procedure in SmartPLS, it can be concluded that multi-group analysis can be carried out since configural and compositional invariance (partial measurement invariance) has been established. The complete results of the measurement invariance (MICOM analysis) are summarised in Table 7.13.

Table 7. 13 *Complete Results of the Invariance Test (MICOM Procedure)*

STEP 1: Configural Variance Established? Yes				
STEP 2: Compositional Invariance: Group A (High - Low Experience)				
Composite	Correlation *c*	5% quantile of the empirical distribution of c_u	*p** value	Compositional invariance established?
Accessibility	0.999	0.982	0.895	Yes
Affordability	0.969	0.915	0.318	Yes
Authenticity	0.991	0.981	0.181	Yes
Extendibility	0.997	0.993	0.187	Yes
Prospects	0.998	0.977	0.825	Yes
STEP 2: Compositional Invariance: Group B (Muslims - Non-Muslims)				
Composite	Correlation *c*	5% quantile of the empirical distribution of c_u	*p** value	Compositional invariance established?
Accessibility	0.994	0.983	0.280	Yes
Affordability	0.995	0.913	0.902	Yes
Authenticity	1.000	0.982	0.885	Yes
Extendibility	1.000	0.993	0.952	Yes
Prospects	0.990	0.976	0.251	Yes
STEP 3: Equality of Composite: Group A (High - Low Experience)				
Composite	Difference in the composite's mean value (= 0)	95% confidence interval	*p** value	Equal mean values?
Accessibility	0.024	[-0.319 - 0.312]	0.862	Yes
Affordability	0.000	[-0.345 - 0.318]	1.000	Yes
Authenticity	-0.028	[-0.353 - 0.308]	0.867	Yes
Extendibility	-0.216	[-0.336 - 0.320]	0.187	Yes
Prospects	-0.057	[-0.318 - 0.308]	0.749	Yes

Composite	Logarithm of the composite's variances ratio (= 0)	95% confidence interval	*p** value	Equal variances?
Accessibility	-0.081	[-0.557 - 0.478]	0.742	Yes
Affordability	0.433	[-0.498 - 0.533]	0.098	Yes
Authenticity	**0.521**	**[-0.428 – 0.484]**	**0.022**	No
Extendibility	-0.042	[-0.411 - 0.426]	0.849	Yes
Prospects	-0.032	[-0.396 - 0.384]	0.872	Yes
STEP 3: Equality of Composite: Group B (Muslims – Non-Muslims)				
Composite	Difference in the composite's mean value (= 0)	95% confidence interval	*p** value	Equal mean values?
Accessibility	-0.021	[-0.315 - 0.345]	0.905	Yes
Affordability	**-0.678**	**[-0.308 - 0.339]**		No
Authenticity	0.069	[-0.332 - 0.317]	0.662	Yes
Extendibility	**-0.669**	**[-0.318 - 0.335]**		No
Prospects	0.188	[-0.330 - 0.329]	0.268	Yes
Composite	Logarithm of the composite's variances ratio (= 0)	95% confidence interval	*p** value	Equal variances?
Accessibility	0.421	[-0.549 - 0.510]	0.101	Yes
Affordability	0.404	[-0.497 – 0.467]	0.104	Yes
Authenticity	**0.803**	**[-0.494 - 0.415]**		No
Extendibility	0.240	[-0.428 - 0.402]	0.266	Yes
Prospects	**0.413**	**[-0.394 - 0.393]**	0.038	No

After establishing the partial measurement invariance and prior to carrying out multi-group analysis, a bootstrapping analysis using 5,000 subsamples on each group was conducted to analyse the path coefficient of each group. The group specific results for the Muslim and non-Muslim groups revealed (see Tables 7.14 and 7.15) that in the Muslim subsample, *authenticity* (β = 0.406, t = 3.801, p <0.001) has a significant effect on the *prospects* for Islamic home finance, whereas *extendibility* has a significant effect (β = 0.513, t = 4.982 and p <0.001) on the *accessibility* construct. In contrast, for the non-Muslim subsample, with the exception of *affordability* (t = 1.214 and p >0.05), all the other constructs' path coefficients were found to be significant. These

effects are also evident from each group's structural model where significant effects can be seen in thicker lines (see Figures 7.4 and 7.5). (There may be slight differences between the Tables' and Figures' structural path coefficients due to the bootstrapping procedure).

Table 7. 14 *Group Specific Path Coefficients (Muslim Group)*

Paths	Beta (β)	95% confidence interval	T Value	P Value
Accessibility -> Prospects	0.169	[-0.052 - 0.378]	1.563	0.118
Affordability -> Prospects	0.202	[-0.164 - 0.446]	1.350	0.177
Authenticity -> Prospects	0.406	[0.176 - 0.596]	3.801*	0.000
Extendibility -> Accessibility	0.513	[0.300 - 0.698]	4.982*	0.000
Extendibility -> Prospects	-0.061	[-0.321 - 0.269]	0.402	0.687

* denotes significance, t value > 1.96

Table 7. 15 *Group Specific Path Coefficients (Non-Muslim Group)*

Paths	Beta (β)	95% confidence interval	T Value	P Values
Accessibility -> Prospects	0.202	[0.006 - 0.387]	2.045*	0.041
Affordability -> Prospects	-0.157	[-0.463 - 0.059]	1.214	0.225
Authenticity -> Prospects	0.412	[0.203 - 0.620]	3.864*	0.000
Extendibility -> Accessibility	0.570	[0.378 - 0.703]	7.004*	0.000
Extendibility ->Prospects	0.376	[0.165 - 0.607]	3.347*	0.001

* denotes significance, t value > 1.96

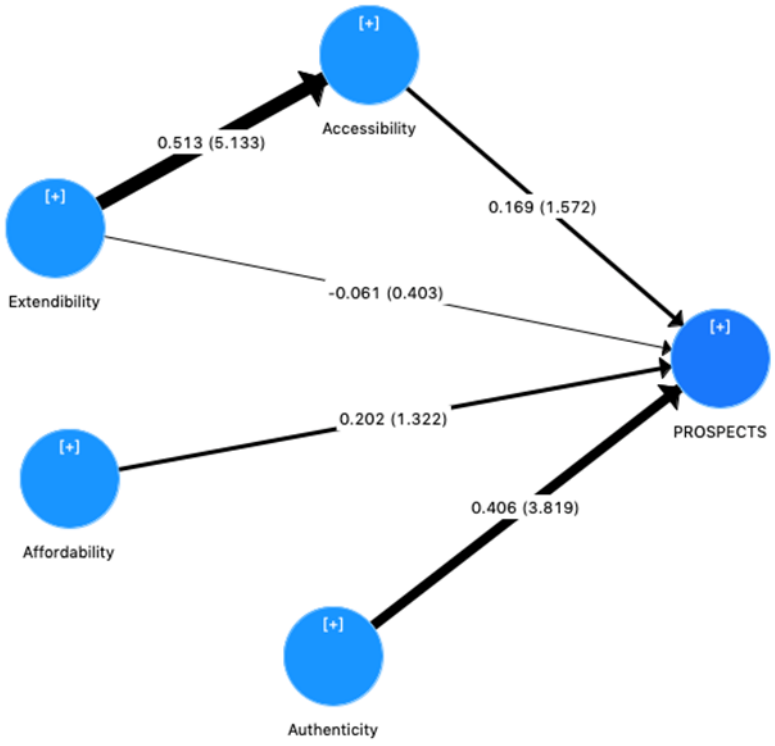

Figure 7. 4 *Structural Path Coefficients (Muslim Group)*

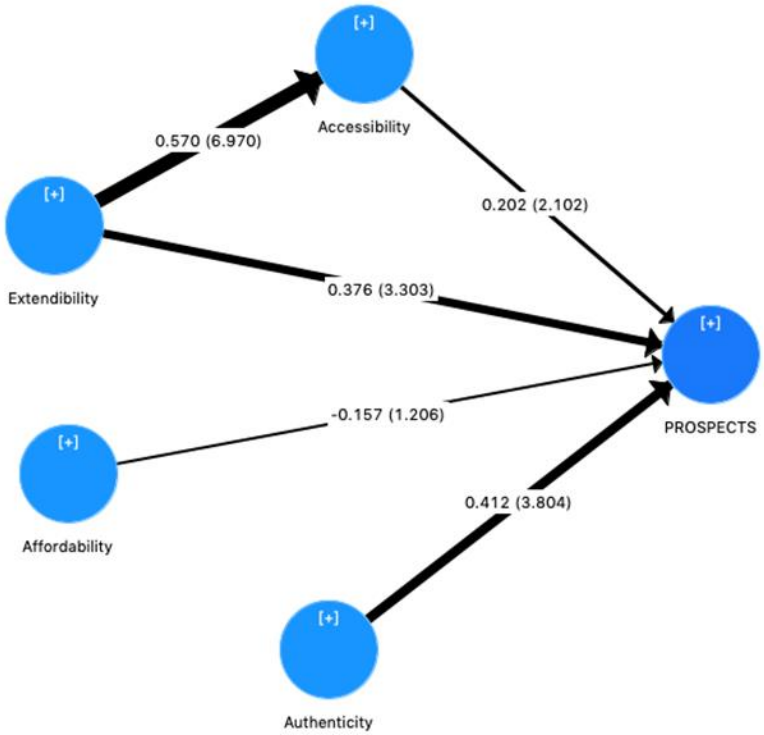

Figure 7. 5 *Structural Path Coefficients (Non-Muslim Group)*

Similarly, for the bootstrapping results (see Tables 7.16 and 7.17) for the experienced-based group, the group specific results for the more experienced group (>10 years' experience) revealed a significant impact of *accessibility* (β = 0.282, *t* = 2.983) *and authenticity* (β = 0.322, t = 3.05, *p* <0.05) on the *prospects,* whereas *extendibility* was found to have a strong impact on the *accessibility* construct, i.e., *t* = 6.478 and *p* < 0.001.

In contrast, the path coefficients of the subsample of the less experienced group (<10 years' experience) showed a non-significant effect of *accessibility, affordability and extendibility* on the *prospects* whereas *authenticity* exerted the strongest effect (*t* = 5.337, *p* <0.001) on the *prospects*. Similarly, *extendibility* showed a relatively strong effect on the *accessibility* construct. The magnitude in variation of impact is also visible by looking at the path lines as shown in Figures 7.6 and 7.7.

Table 7. 16 *Path Coefficients (Experience > 10 years)*

Paths	Beta (β)	95% confidence interval	T Value	P Value
Accessibility -> Prospects	0.282	[0.091 - 0.463]	2.983*	0.003
Affordability -> Prospects	0.078	[-0.264 - 0.378]	0.482	0.630
Authenticity -> Prospects	0.322	[0.115 - 0.530]	3.050*	0.002
Extendibility -> Accessibility	0.595	[0.393 - 0.750]	6.478*	0.000
Extendibility -> Prospects	0.087	[-0.24 - 0.460]	0.491	0.624

* denotes significance, t value > 1.96

Table 7. 17 *Path Coefficients (Experience < 10 years)*

Paths	Beta (β)	95% confidence interval	T Value	P Value
Accessibility -> Prospects	0.152	[-0.028 - 0.364]	1.541	0.123
Affordability -> Prospects	-0.062	[-0.557 - 0.260]	0.305	0.76
Authenticity -> Prospects	0.551	[0.297 - 0.717]	5.337*	0.00
Extendibility -> Accessibility	0.432	[0.178 - 0.616]	3.763*	0.00
Extendibility -> Prospects	0.135	[-0.112 - 0.475]	0.911	0.362

* denotes significance, t value > 1.96

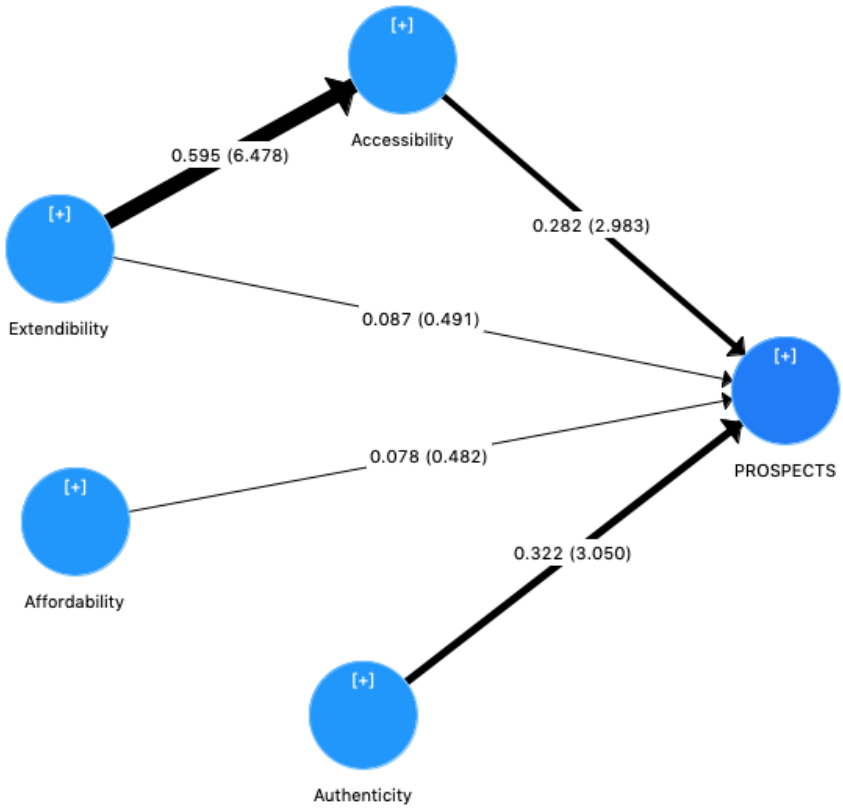

Figure 7. 6 *Structural Path Coefficients (Group = Experience >10 Years)*

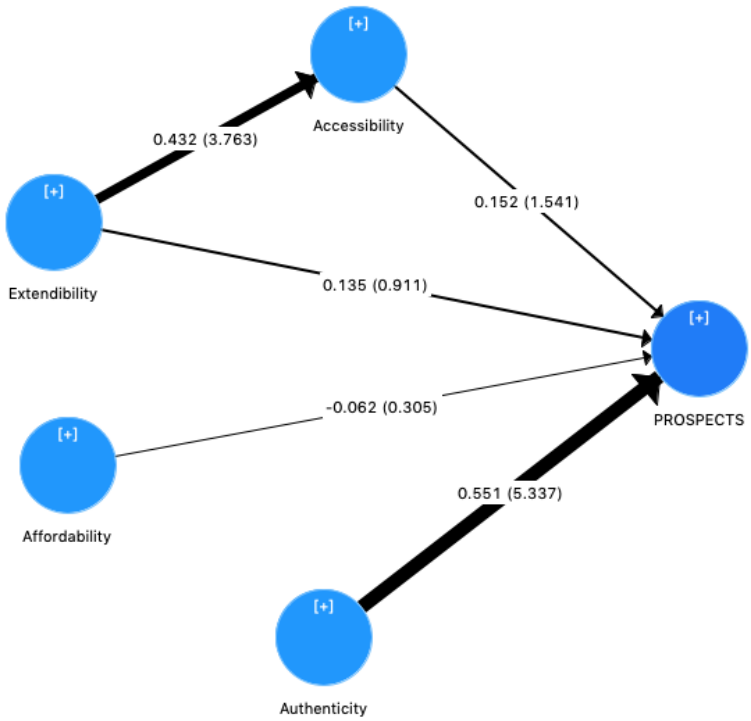

Figure 7. 7 *Structural Path Coefficients (Group = Experience <10 Years)*

Although, the above analysis (bootstrapping results) has revealed the significance or insignificance (as the case may be) of the path coefficients, the question emerges whether these numeric differences between these groups' path coefficients are statistically significant. Hence, multi-group analysis was conducted to identify meaningful and significant differences in multiple relationship across group-specific results.

The results of multi-group analysis applying widely adopted Keil et al.'s (2000) parametric test and Welch-Satterthwait *t* test in Tables 7.18 and 7.19 below, reveal that there is only one relationship, *extendibility -> prospects*, which differs significantly (p <0.05) across the Muslim and non-Muslim groups. Thus, Hypothesis 6 that there is a statistically significant difference among all path coefficients for the Muslim and non-Muslim groups is not supported. Almost the same pattern was found between the high-experience vs. the low-experience group, where all path coefficients were found to be

insignificant, i.e. $p > 0.05$ (see Table 7.20 and 7.21); this does not support Hypothesis 7. In conclusion, both methods of multi-group analysis were found to support each other's findings, not only providing a multi-method confirmation, but also increasing the credibility of the overall results.

Table 7. 18 *Parametric Test (Muslim vs. Non-Muslim Group)*

	Path relationships	Beta (β) -diff (Muslim - NonMuslim)	t-Value (|Muslim vs. NonMuslim|)	p-Value (Muslim vs. NonMuslim)	Decision supported
H_6	Accessibility -> Prospects	-0.032	0.223	0.824	**No**
	Affordability -> Prospects	0.359	1.809	0.073	
	Authenticity -> Prospects	-0.006	0.039	0.969	
	Extendibility -> Accessibility	-0.057	0.447	0.656	
	Extendibility -> Prospects	-0.437	2.385*	0.018**	

* denotes significance, t value > 1.96 ** denotes significance, p < 0.05

Table 7. 19 *Welch's T-test (Muslim vs. Non-Muslim Group)*

	Path relationships	Beta (β) -diff (Muslim - NonMuslim)	t-Value (|Muslim vs. NonMuslim|)	p-Value (Muslim vs. NonMuslim)	Decision supported
H_6	Accessibility -> Prospects	-0.032	0.223	0.824	**No**
	Affordability -> Prospects	0.359	1.801	0.076	
	Authenticity -> Prospects	-0.006	0.039	0.969	
	Extendibility -> Accessibility	-0.057	0.443	0.659	
	Extendibility -> Prospects	-0.437	2.341*	0.022**	

* denotes significance, t value > 1.96 ** denotes significance p<0.05

Table 7. 20 *Parametric Test (High- vs. Low-Experience Group)*

	Path relationships	Beta (β)-diff (Exp >10 Yrs - Exp <10 Yrs)	t-Value (|Exp >10 Yrs vs. Exp <10 Yrs|)	p-Value (Exp>10 Yrs vs. Exp <10 Yrs)	Decision supported
H_7	Accessibility -> Prospects	0.130	0.950	0.344	**No**
	Affordability_ -> Prospects	0.141	0.546	0.586	
	Authenticity -> Prospects	-0.229	1.554	0.122	
	Extendibility -> Accessibility	0.163	1.141	0.256	
	Extendibility -> Prospects	-0.047	0.205	0.838	

Table 7. 21 *Welch's t-test (High- vs. Low-Experience Group)*

	Path relationships	Beta (β)-diff (Exp>10 Yrs - Exp <10 Yrs)	t-Value (|Exp>10 Yrs vs. Exp<10 Yrs|)	p-Value (Exp >10 Yrs vs. Exp <10 Yrs)	Decision supported
H_7	Accessibility -> Prospects	0.130	0.949	0.346	**No**
	Affordability -> Prospects	0.141	0.541	0.590	
	Authenticity -> Prospects	-0.229	1.561	0.123	
	Extendibility -> Accessibility	0.163	1.134	0.261	
	Extendibility -> Prospects	-0.047	0.208	0.836	

7.10 Importance Performance Matrix Analysis (IPMA)

As an extension to the above results, this study also ran a post-hoc importance-performance matrix analysis (IPMA), also called an impact-performance map or priority map analysis using *prospects* (for Islamic home finance in the UK) as the target construct. The IPMA is an advance procedure which provides a platform for enriching the PLS-SEM analysis in order to obtain additional insights beyond the analysis of the path coefficients (i.e., the importance dimension) as it simultaneously considers the average value of the constructs and their corresponding items (i.e. performance dimension) (Ringle & Sarstedt, 2016). The results are drawn on a two-dimensional plot (i.e., both importance and performance), to facilitate data interpretation as described in Figure 7.8. The importance-performance matrix analysis of path modelling results support to identify areas of improvement that can consequently be focused upon with marketing strategies, policy making or management decision making (Höck, Ringle, & Sarstedt, 2010).

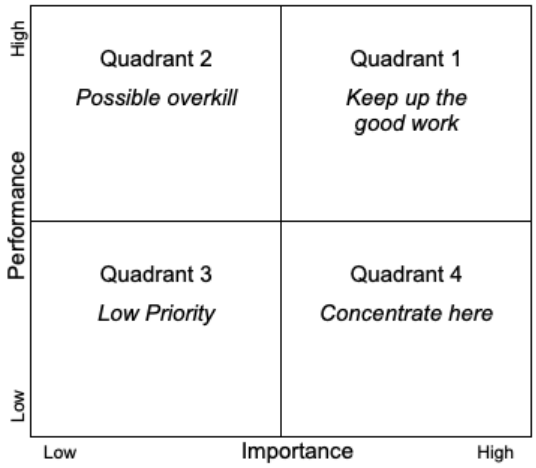

Figure 7. 8 *IPMA Standard Plot*
Source: Sever (2015)

As seen in the above figure, the IPMA matrix has four zones or quadrants of improvement priority (Pycraft, 2000; Sever, 2015). The first quadrant, ‘keep up the good work’, demonstrates the positive aspect and possible competitive advantage of a service or product. The construct(s) placed in the first quadrant are expected to perform satisfactorily and policymakers should aim to preserve the quality of these construct(s) through continued investment (Djeri et al., 2018). In contrast, Quadrant 2, the ‘possible overkill’ area, represents constructs of low importance or value to customers, which are considered to be performing strongly, suggesting possible waste of limited resources that are inefficiently capitalised and could be diverted elsewhere (Dwyer et al., 2014). Any construct that falls into Quadrant 3 does not appear to be performing exceptionally well and is regarded by customers as less important; therefore, the management or policymakers should not be overly concerned about constructs situated in Quadrant 3 as any construct in this quadrant denotes minor weaknesses and poor performance and so does not pose a major issue. Quadrant 4 – ‘concentrate here’ – is the most critical area in the priority matrix. Any construct situated in this quadrant is considered to be performing less well than expected, representing major deficiencies in the products or services and posing a serious challenge to its competitiveness. Thus, constructs in Q4 require urgent corrective measures and the highest investment priority (Ormanovic et al., 2017).

Prior to conducting the importance-performance analysis, it is highly important that the application of IPMA meets two key requirements. The first precondition is to ensure that all indictor coding must have the same direction. This precondition has

already been met since all items were measured on a 10-point Likert scale (I = strongly disagree; 10 = strongly agree).The second precondition is to check that the measurement model's outer weights are not negative. In order to fulfil this prerequisite, a bootstrapping (5,000 subsample) procedure was conducted. The results of the bootstrapping, as seen in Table 7.22, revealed no negative values, thus meeting the second condition.

Table 7. 22 *IPMA: Requirements Check*

Paths	Beta (β)	Standard Deviation	T Values	P Values
access_1 <- Accessibility	0.738	0.045	16.396	0.00
access_2 <- Accessibility	0.739	0.047	15.787	0.00
access_3 <- Accessibility	0.883	0.021	41.897	0.00
access_4 <- Accessibility	0.826	0.036	22.893	0.00
access_5 <- Accessibility	0.775	0.046	16.842	0.00
access_6 <- Accessibility	0.771	0.049	15.732	0.00
afford_1 <- Affordability_	0.845	0.072	11.693	0.00
afford_2 <- Affordability_	0.824	0.074	11.095	0.00
afford_3 <- Affordability_	0.753	0.102	7.376	0.00
afford_4 <- Affordability_	0.706	0.108	6.56	0.00
authen_1 <- Authenticity	0.874	0.031	28.039	0.00
authen_2 <- Authenticity	0.883	0.031	28.446	0.00
authen_3 <- Authenticity	0.806	0.039	20.797	0.00
extend_1 <- Extendibility	0.841	0.043	19.489	0.00
extend_2 <- Extendibility	0.911	0.017	52.985	0.00
extend_3 <- Extendibility	0.929	0.014	64.647	0.00
prosp_1 <- Prospects	0.695	0.066	10.577	0.00
prosp_2 <- Prospects	0.753	0.056	13.404	0.00
prosp_3 <- Prospects	0.886	0.025	35.395	0.00
prosp_4 <- Prospects	0.820	0.039	21.098	0.00

After having met the perquisites, the IPMA application was carried out. The values, the total effects (importance) and index values (performance), are shown in Table 7.23.

Table 7. 23 *Data for the Importance-Performance Map for Prospects*

Construct	Importance (Total Effects)	Performance (Index Values)
Accessibility	0.261	32.02
Affordability	-0.064	35.242
Authenticity	0.419	46.138
Extendibility	0.258	33.414
(Average)	**0.21**	**36.7**

These values have been synchronised to create the importance-performance matrix. The overall average values for the importance of the assessed constructs have been inserted on the horizontal (x) axis, while the overall performance average values of the evaluated constructs entered on the vertical (y) axis.

The combined mean values of the importance (0.21) and performance (36.7) of all constructs were selected as the convergence point of the (x) and (y) axes in the IPMA grid, from which four quadrants could be described.

The constructs are then examined according to the placement in the importance-performance matrix i.e. the corresponding quadrant in which the constructs are positioned. A visual inspection of the IPMA chart (see Figure 7.9) revealed that *authenticity* has a particularly high importance of 0.419 and relatively high performance (46.13), as compared to other constructs. This indicates that the participants value this construct as the most relevant to the prospects for the Islamic home finance.

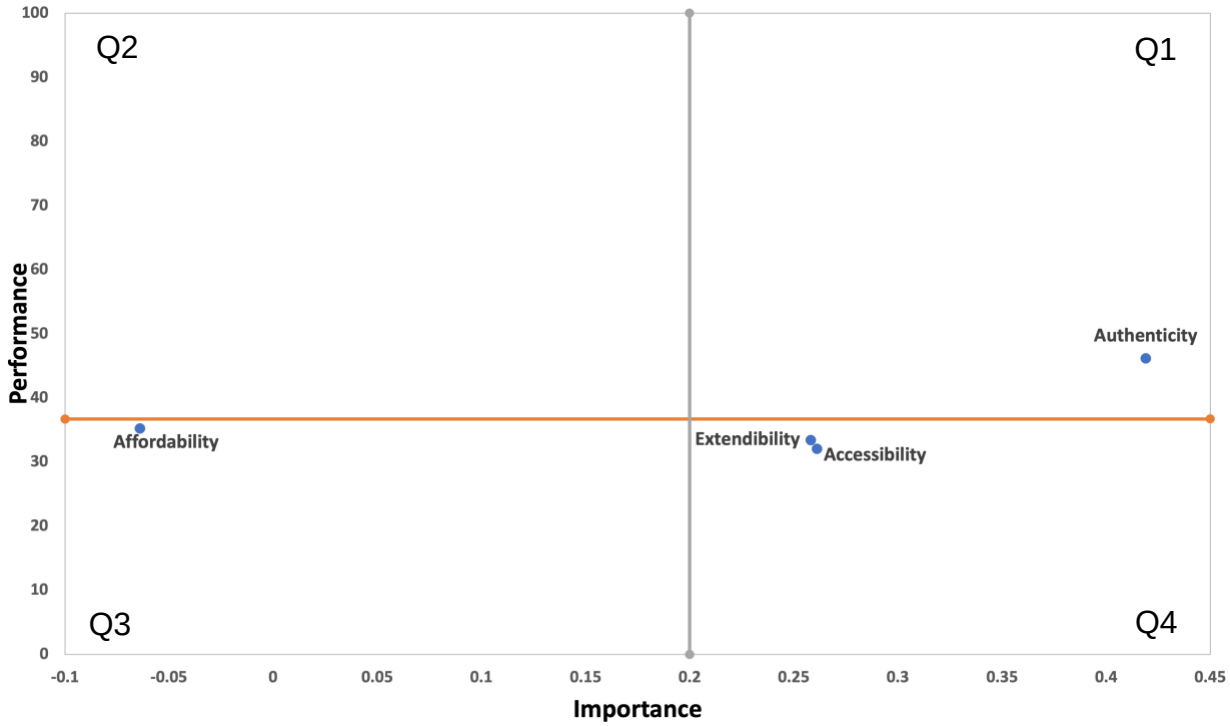

Figure 7. 9 *Importance-Performance Map for the Target Construct: Prospects (for IHF in the UK)*

The *accessibility* and *extendibility* constructs were placed in the lower right 'concentrate here' quadrant (Q4), meaning that the participants consider these constructs very important but, with a lower average level of performance.

The IPMA results also revealed that *affordability* fell into quadrant 3, the 'low priority' area. This translates that the *affordability* (cost-related) attributes are performing well and at the same time are considered to be less important to the participants.

7.11 Summary

This chapter reported on the second stage of the PLS-SEM analysis – assessment of the structural model. Prior to evaluating the structural model, there was an assessment of the collinearity issues in the data by measuring the inflation factor

values (VIF) of each construct. All VIF values of the constructs had been found to be below the ideal threshold of 3, indicating no collinearity issues in the data. Following the collinearity assessment, a bootstrapping procedure with 5,000 subsamples was carried out to test the direct path coefficients (β) and proposed hypotheses (H_1 – H_4). With the exception of *affordability* → *prospects,* all other hypothesised relationships i.e., *accessibility* → *prospects*, *authenticity* → *prospects* and *extendibility* → *accessibility* were found to be significant. The chapter also evaluated the coefficient of determination (R^2), or explanatory power of the main construct of interest, *prospects* (for the Islamic home finance industry). The resulting value of R^2 was found to be 0.358, and that is considered to be high as per the most widely used Cohen's (1988) R^2 values.

The chapter further included a discussion of the effect size (f^2) - the meaningfulness of the impact of the exogenous constructs on endogenous constructs. The effect size (f^2) analysis showed that *accessibility* has a small effect (0.057) and *affordability* almost no effect (0.002) on the *prospects*. In contrast, *extendibility* (0.336) and *authenticity* (0.243) showed fairly large effect sizes (f^2) on the endogenous variables such as *accessibility* and *prospects.*

The predictive relevance (Q^2) of the research model was also tested through blindfolding procedure. The Q^2 values of the endogenous constructs, *accessibility* (0.147) and *prospects* (0.209), were found to be larger than 0, demonstrating good predictive power of the research model.

Furthermore, the chapter conducted the mediation analysis, which found a significant indirect effect of *extendibility* (t = 2.763) on the *prospects* for Islamic home finance in the UK via the *accessibility* construct. Further to this, the chapter reported on a measurement equivalence test that had been meticulously carried out by applying the MICOM procedure (i.e., configural invariance, compositional invariance and equality of composite) followed by conducting the multi-group analysis. The path analysis of the multigroup analysis (i.e., Parametric test and Welch's T-test) revealed no differences between Muslims vs. non-Muslims or highly-experience vs. the inexperienced mortgage broker data groups.

The final part of the chapter described a post-hoc and advanced procedure; importance-performance matrix analysis (IPMA) to obtain additional insights beyond path analysis. The IPMA analysis revealed *authenticity* as having a particularly high importance and relatively high performance as compared to other constructs, meaning that *authenticity* is valued as being the most relevant to the prospects for the Islamic home finance by the mortgage brokers.

The following chapter will present a detailed discussion of the outcome of the aforementioned results, and relate the findings to the objectives set at the outset, as well as the previous research in this domain.

Chapter 8: Discussion, Limitations and Future Work

8.1 Introduction

This chapter discusses the empirical results attained in the previous data analysis chapter and relates the outcomes back to the research objectives and research problems that underpin this study. The results are discussed in relation to the existing literature and the conceptual framework. The chapter begins with a summary of the study, including an overall review of the theoretical background that underpins the hypotheses. Following this, the chapter examines the theoretical and practical implications of the study. Finally, the chapter discusses the limitations of this project and offers suggestions for further research.

8.2 Discussion on the Results and Findings

Over the last two decades, Islamic home finance has attracted considerable attention globally and locally. In the context of the UK, a number of studies (e.g., Dar, 2004; Mansour et al., 2010; Tameme, 2009) have attempted to assess the challenges, potential and/or demand of Islamic home finance. However, to date, the vast majority of studies have followed a customer-oriented perspective with little attention given to the views of professionals in the mortgage sector. Even studies that have involved professional participants, i.e., banking employees (e.g., Masood & Bellalah, 2013) and scholars (e.g., Hersi, 2009), have been limited to one-sided views and have failed to take into account the views of independent and industry-led experts.

Similarly, some studies (e.g., Akbar, Shah and Kalmadi, 2012; Dar 2004; Hussain, 2014; Khan, 2012; Riaz, Burton and Monk, 2017) adopted a one-size-fits-all approach by focusing on an overall picture of Islamic finance without any real emphasis on Islamic home finance. Studies that have concentrated solely on Islamic home finance (e.g., Matthews et al., 2003; Tameme, 2009; Masood, et.al., 2009a) are essentially now out of date due to the changes in the demographic landscape of the Muslim population and changes in the financial environment. In summary, the current literature is limited because of a high degree of sampling bias i.e., mono-religious bias (Muslim customers and Islamic scholars) and ill-conceived participants (i.e., low socio-economically active Muslim customers), raising the questions on the reliability, generalisability, and practical relevance of past studies in the current economic and financial environment. Furthermore, most studies have suffered from the lack of a strong theoretical framework. These limitations leave a huge gap in the literature of Islamic home finance. This study was initiated in order to address these gaps.

Unlike the majority of previous studies which were narrowly confined to one particular Muslim segment, and overly relied on non-expert participants, this research shifted the focus and examined key stakeholders that have, in the main, been ignored; fully qualified FCA-approved mortgage consultants, in order to extract credible insights that are supported with current, first-hand, and industry-driven perspectives on the prospects for Islamic home finance in the UK. Previous studies have also overlooked the potential impact of religion. Consequently, one key objective of this study was to address the lack of sampling diversity by

including non-Muslim mortgage brokers as research participants, to explore how non-Muslims perceive the prospects for Islamic home finance as opposed to their Muslim counterparts.

Finally, the majority of the existing research also has notable methodological weakness in terms of commonly using first-generation statistical procedures (i.e., descriptive data analysis, linear regression and ANOVA). This study aimed to overcome this limitation and applied an innovative approach to predict the views of both Muslims and non-Muslims on the prospects for Islamic home finance, by utilising a second generation of multivariate analysis; partial least squares structural equation modelling. By doing so, this study developed a robust conceptual research model that examines the various constructs or latent variables that are expected to affect the key target construct, the prospects for Islamic home finance in the UK.

The conceptual framework has been developed based on the existing supporting studies, the researcher's own experience in the industry, logic and interviews with financial experts. The theoretical framework included four constructs, namely *accessibility*, *extendibility*, *authenticity,* and *affordability,* as well as the key target construct: Prospects (for Islamic home finance in the UK).

The operational definition of each developed construct as follows:

Accessibility: This construct refers to the extent to which Islamic home finance in the UK is readily accessible (and comprehensible) to potential clients. This reflective latent factor is measured using six items.

Affordability: This exogenous construct in the conceptual framework refers to the extent to which Islamic home finance is affordable or cost-effective for UK home finance customers. This reflective latent factor is measured using four items.

Authenticity: This exogenous construct in the conceptual framework refers to the extent to which Islamic home finance is perceived as *bona fide* and trustworthy. This reflective latent factor is measured using three items.

Extendibility: This is an exogenous construct in the research framework and refers to the extent to which Islamic home finance is easily extendible to potential clients. This reflective latent factor is measured using three items.

Prospects (for Islamic home finance in the UK): This endogenous construct refers to the extent to which there is a significant demand for Islamic home finance in the UK and the overall future prospects for Islamic home finance. This has four measuring items.

Having developed the conceptual framework, the operational definitions of the constructs, and the development of their corresponding items, the following hypotheses were developed to test the effect of each construct on the target construct; prospects (for Islamic home finance in the UK).

The first hypothesis was developed to explore the relationship between *accessibility* and the *prospects* for Islamic home finance in the UK:

H_1: *Accessibility has a positive significant effect on the prospects for Islamic home finance in the UK.*

The second hypothesis was developed to examine the relationship between *affordability* and the *prospects* for Islamic home finance in the UK:

H_2: *Affordability has a positive significant effect on the prospects for Islamic home finance in the UK.*

The third and fourth hypotheses were created to test the direct relationship between *authenticity* and the *prospects* for Islamic home finance and between *extendibility* and the *accessibility* of Islamic home finance in the UK:

H_3: *Authenticity has a positive significant effect on the prospects for Islamic home finance in the UK.*

H_4: Extendibility has a positive significant effect on the accessibility of Islamic home finance in the UK.

In the conceptual model, the study also introduced *accessibility* as a mediating variable between *extendibility* and *prospects* for Islamic home finance. Hence, fifth hypothesis was developed as following:

H_5: The effect of extendibility on the prospects for Islamic home finance is mediated by the accessibility of Islamic home finance in the UK.

As mentioned above, one objective of this research was to address mono-religious bias by taking into account the perspectives of non-Muslim mortgage brokers, to determine the impact of religion on the prospects of Islamic home finance in the UK. Accordingly, the religious affiliation of the participants was incorporated into the conceptual model as a moderator, in order to investigate how religious affiliation can impact (Muslims or Non-Muslims) the path relationships between independent and dependent variables. Thus, a sixth hypothesis was formulated as:

H_6: *Religion will have a significant categorical moderating effect on the relationship among model constructs.*

Apart from religion, the impact of the experience of mortgage brokers was also taken into account as a categorical moderating variable. The key reason for this initiative was to investigate whether experienced mortgage brokers who witnessed the subprime mortgage crisis predict the prospects for Islamic home finance differently, as opposed to a novice financial expert (i.e., having less than 10 years' experience) who did not experience the crisis in their professional career. This proposition allowed us to explore whether the sustainability of Islamic home finance during the subprime crisis has influenced the perception of in mortgage brokers towards its prospects in the UK's market.

Accordingly, a seventh hypothesis was set as follows:

$H_{7:}$ *Experience will have a significant categorical moderating effect on the relationship among model constructs.*

After having developed the conceptual framework, the theoretical framework was built in SmartPLS 3 to test the relationship among constructs (path modelling estimation) to predict the prospects for Islamic home finance in the UK by applying PLS-SEM.

Data was collected from a sample of 155 mortgage experts via Qualtrics and through in-person research. Participants were asked to evaluate each statement (i.e., indicator variable) on a 10-point Likert scale, with a range of 1–10 (1= strongly disagree, 10= strongly agree) regarding the following four major constructs: *accessibility*, *affordability*, *authenticity, and extendibility.* A total of 11 responses were deleted due to overly missing values and inconsistent or suspicious response patterns leaving a total sample of 144. The final data were divided based on two categories: religious affiliation (Muslim and Non-Muslim) and experience level (high = >10 years and low = <10 years). Some 65 (45%) of participants specified their religious affiliation as Muslim, while 79 (55%) said they were non-Muslim. In terms of experience, 76 participants (mortgage brokers) (53%) had over 10 years' experience in the mortgage market, while 68 (47%) had less than 10 years' experience. The research model was assessed using two stages: validation of the reflective measurement model (constructs) and the structural model. The evaluation of the measurement models was carried out through indicator reliability, internal consistency reliability i.e., Cronbach's Alpha (α); composite reliability and rho (ρ_A), convergent validity; average variance extracted (AVE) and discriminant

validity — indicator cross-loadings, the Fornell–Larcker Criterion, and the heterotrait-monotrait (HTMT) ratio of correlation. For the sake of brevity, the evaluation of the measurement models is not discussed here. The assessment of these measures is discussed in detail in Chapter 6. Nevertheless, for ease of reference, all the results of the measurement models are summarised in Table 8.1 below, showing the validity of each measurement model's test as per the recommended rule of thumb.

Table 8. 1 *Results Summary of Measurement Models*

Latent Variable	Items	Loadings	Convergent Validity	Internal Consistency Reliability			Discriminant Validity
			AVE	CR	rho (ρ_A)	Cronbach's alpha	
		>0.70	>0.50	0.60-0.90	>0.70	0.60-0.90	HTML confidence interval does not include 1
Accessibility	access_1	0.738	0.625	0.909	0.887	0.880	Yes
	access_2	0.739					
	access_3	0.883					
	access_4	0.826					
	access_5	0.775					
	access_6	0.771					
Affordability	afford_1	0.845	0.614	0.864	0.816	0.792	Yes
	afford_2	0.824					
	afford_3	0.753					
	afford_4	0.706					
Authenticity	authen_1	0.874	0.731	0.891	0.821	0.816	Yes
	authen_2	0.883					
	authen_3	0.806					
Extendibility	extend_1	0.841	0.801	0.923	0.901	0.876	Yes
	extend_2	0.911					
	extend_3	0.929					
Prospects	prosp_1	0.695	0.627	0.869	0.834	0.801	Yes
	prosp_2	0.753					
	prosp_3	0.886					
	prosp_4	0.820					

Having assessed the reflective measurement models, partial least squares structural equation modelling (PLS-SEM) was performed to assess the path coefficients between all constructs to test the hypotheses. All direct, indirect, moderating, and total effects were tested to identify the interrelationships between the constructs. A bootstrapping procedure with 5,000 subsamples was carried out to test the direct path coefficients (β) and the proposed hypotheses.

Prior to evaluating the structural model, the issue of collinearity was assessed to ensure that the two hypothesised variables were not causally related and measured the same construct. The collinearity assessment results (summarised in Table 8.2) indicated all VIF values were well below the ideal threshold (<3), so there were no collinearity issues in the data.

Table 8. 2 *Collinearity Assessment*

	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility					1.372
Affordability					2.29
Authenticity					1.264
Extendibility	1				2.466
Prospects					

Subsequently, partial least squares structural equation modelling (PLS-SEM) was performed using SmartPLS 3.0 to assess the path coefficients between all constructs to test the hypotheses. The findings supported four hypotheses, while three hypotheses were not supported.

According to the path analysis, H_1 *accessibility* has a positive significant effect on the prospects for Islamic home finance in the UK, was fully supported. The

standardised path coefficient for H_1 was ($\beta = 0.224$, *t-value* = 3.277). This indicates that the relationship between *accessibility* and the *prospects* for the Islamic home finance is supported. This result corroborates the findings of Tameme (2009) and Tameme and Asutay (2012) claiming accessibility is a serious issue for potential Muslim customers and acts as a real impediment to the prospects for Islamic home finance. The findings of H_1 also confirms the arguments of Abdullrahim and Robson (2017) and Riaz (2014) who also considered accessibility to be one of the most important factors for British Muslims, especially for less affluent Muslims. This result is also in line with the study by Ahmed, Kabir and Aziz (2020), which claimed that accessibility still presents a huge challenge for Islamic banks, especially when a quarter of the Muslim population possess no qualifications and lack financial literacy skills, with many struggling to comprehend the fundamental basics of Islamic home finance. This finding is discouraging for the UK government which, despite its efforts to bring Islamic home finance into the mainstream sector, face severe grassroot problems that are inherent within the Muslim market segment.

The second hypothesis, that *affordability* has a positive significant effect on the *prospects* for Islamic home finance in the UK, was not supported. Surprisingly, this finding contradicts the commonly held view that Islamic home finance is more expensive than conventional home financing. To date, the vast majority of studies have frequently claimed affordability as being one of the key impediments to the prospects for Islamic home finance in the UK. For example, Cumbo (2005), Dar (2005), Hersi (2009), Tameme (2009), Tameme and Asutay, (2012) and M. Amin (2017) unanimously claimed that Islamic home finance is perceived as more

expensive than conventional home finance. The finding of the second hypothesis also opposes Ahmed et al., (2020) and Tameme (2009) views that one of the greatest concerns for British Muslims is the inability to pay the higher initial deposit required by Islamic banks, arguing that higher cost is one of the main reasons for the low uptake of Islamic home finance among Muslims.

Based on the outcome of the path relationship between *affordability* and the *prospects* for Islamic home finance, it can be established that, despite being a relatively new entrant in the financial sector, the cost-related aspects of Islamic home finance are no longer considered to be a significant issue. However, to date, Islamic banks have not capitalised on this feature due to perception from customers that Islamic home finance is an expensive product. One of the key reasons is the confirmation of H_1, that *accessibility* has a positive significant effect on the prospects for Islamic home finance in the UK.

The standard coefficient of H_3, *authenticity,* is found to have the strongest direct effect ($\beta = 0.444$, *t*-value = 5.287; $p < 0.001$) on the *prospects* for Islamic home finance in the UK, thus supporting the proposed hypothesis. This finding endorses the findings of Zakariyah (2012) and Hersi, (2009) that the most apparent fault of the Islamic home finance industry has been its failure, in the eyes of observant Muslims, to comply with the basic ethical principles of Islamic jurisprudence, which has added to the mistrust of Islamic home finance in the UK. This finding is quite alarming for Islamic banks, especially when it is derived from the perspective of mortgage brokers. It is quite surprising that, despite the fact that Islamic home finance largely avoided the subprime crisis and revived the relationship between

financial stability and Islamic banking due to its focus on principles of partnership, transparency and fairness (Hasan & Dridi, 2011), it is still struggling to gain trust not only among potential customers, but also among the industry's' experts in the UK.

Hypothesis 4, that *extendibility* has a positive significant effect on accessibility, and hypothesis 5, that the effect of *extendibility* on the *prospects* for Islamic home finance is mediated by the *accessibility,* have both been supported by this research. This finding supports the view of Ahmed et al., (2020), that the *extendibility* of Islamic home finance has become a cause of concern for many potential UK customers, which is largely attributed due to the careful risk appraisal and complexity involved in Islamic home finance.

This issue is mainly due to the conservative approach taken by Islamic banks. Unlike conventional banks that are able to lend cash by borrowing from the wholesale money markets, ethical Islamic finance is much more reliant on utilising its depositors' savings accounts (Ethica, 2017; Tameme, 2009; Tameme & Asutay 2012). Therefore, to fulfil its role as a partner rather than merely a lender, Islamic banks arguably assess risks more deeply, or certainly assess risks differently in a more personalised manner to effectively monitor the use of funds by borrowers for the mutual benefits of all stakeholders (Warde, 2012). There is no doubt that the double assessment of risk by both the financier and the borrower injects greater discipline into the system and restrains excessive lending and borrowing (Chapra, 2011), and that this principle safeguarded banks during the subprime crisis (Iqbal & Mirakhor, 2011; Warde, 2012). However, this rigid approach to business raises

questions over the *extendibility* of Islamic home finance, particularly in the UK market which strongly affects the *accessibility* of Islamic home finance (β = 0.501, *t*-value = 6.46) which (*accessibility*) in turn eventually affects the *prospects* for Islamic home finance in UK. Hypothesis 4, can be linked to Tameme and Asutay (2012) findings that found that many potential Muslim clients interested in home financing do not access due to a perception that success may be difficult, because of the strict criteria applied by the Islamic banks. Hypothesis 4 also reinforces M. Amin's (2010a) view that the home finance process is overly complicated, thus placing the complex structure of Islamic finance beyond the understanding of customers who have previously lacked engagement with financial institutions or who may be financially illiterate. Similar support is gained by the study by Ahmed et al., (2020), that argued that Islamic home finance is not only considered to be overly complicated, but can also be difficult to secure, raising questions over the *extendibility* of Islamic home finance. This signifies that *extendibility* acts as a key determinant to the *accessibility* of Islamic home finance and also indicates that the effect of *extendibility* on the *prospects* for Islamic home finance is transmitted through *accessibility*. In other words, *accessibility* as a mediator plays an important underlying mechanism in the relationship between *extendibility* and the *prospects* for Islamic home finance. This has also been supported by the H_5 path relationship showing the significant indirect effect of *extendibility* on the *prospects* for Islamic home finance (*t = 2.763*) via the *accessibility* construct, while the relationship between *extendibility* → *prospects* was found to be statistically non-significant (*t* = 1.096; *p* > 0.05), as highlighted in Table 8.3.

Table 8. 3 *Significance Analysis of the Direct and Indirect Effects*

	Relationship	Direct Effect	T Value	P Value	95% Confidence Interval	Significance (p<0.05)?	Decision
H_5	Extendibility -> Prospects	0.121	1.096	0.273	[-0.073-0.368]	No	Supported^
	Extendibility -> Prospects	**Indirect Effect**	**T Value**	**P Value**	**95% Confidence Interval**	**Significance (p<0.05)?**	
		0.117	2.763*	0.006**	[0.045-0.204]	Yes	

*Two tailed test, * t> 1.96 **p<0.05*
^ Indirect-only mediation or full mediation: the indirect effect is significant but the direct effect is not significant.

With regard to Hypothesis 6, that religion will have a significant categorical moderating effect on the relationship among model constructs, was surprisingly, not supported. The results of the PLS multi-group analysis (e.g., parametric test) revealed no significant moderating effect of religion on the path relationships (except one relationship, *extendibility* $\rightarrow$ *prospects*, p = 0.018), as shown in Table 8.4. This finding is one of a kind and its implications are discussed in the following section.

Table 8. 4 *Parametric Test (Muslim vs. Non-Muslim Group)*

	Path relationships	(β) -diff (Muslim - NonMuslim)	t-Value (|Muslim vs. NonMuslim|)	p-Value (Muslim vs. NonMuslim)
H_6	Accessibility -> Prospects	-0.032	0.223	0.824 Nsig
	Affordability -> Prospects	0.359	1.809	0.073 Nsig
	Authenticity -> Prospects	-0.006	0.039	0.969 Nsig
	Extendibility -> Accessibility	-0.057	0.447	0.656 Nsig
	Extendibility -> Prospects	-0.437	2.385	0.018 Sig

Sig. denotes p<0.05; Nsig. denotes p>0.05

Hypothesis 7, that experience will have a significant categorical moderating effect on the relationship among the model constructs, was also unexpectedly found to be insignificant across all relationships between the high- and low-experience groups. Thus, H_7 was not supported. This is evident from the results of the

experienced-based groups presented in Table 8.5, showing non-significant differences in the group-specific path relationships.

Table 8. 5 *Parametric Test (High- vs. Low-Experience Group)*

	Path relationships	(β)-diff (Exp >10 Yrs - Exp <10 Yrs)	t-Value (|Exp >10 Yrs vs. Exp <10 Yrs|)	p-Value (Exp>10 Yrs vs. Exp <10 Yrs)
	Accessibility -> Prospects	0.130	0.950	0.344 Nsig
H_7	Affordability_ -> Prospects	0.141	0.546	0.586 Nsig
	Authenticity -> Prospects	-0.229	1.554	0.122 Nsig
	Extendibility -> Accessibility	0.163	1.141	0.256 Nsig
	Extendibility -> Prospects	-0.047	0.205	0.838 Nsig

Nsig. denotes p>0.05

Despite the rejection of the proposed hypothesis 7, this finding is significant for the Islamic home finance industry and Islamic banks at large. From the results, it can be concluded that, even though Islamic home finance was largely untouched during the subprime mortgage crisis (Askari, Iqbal & Mirakhor, 2015; Warde, 2012) the events have not affected the perception of mortgage brokers towards the *prospects* for Islamic home finance in the UK.

In addition to assessing the hypothesised relationships (path coefficients) of the structural model, the study also analysed the model's predictive accuracy or explanatory power by checking the coefficient of determination (R^2). The overall R^2 value (0.358) of the main construct of interest, *prospects* (for the Islamic home finance industry), is considered to be strong[11] based on the cut-off value recommended by Cohen (1998). This indicates that the four constructs – *authenticity*, *affordability*, *extendibility* and *accessibility* – together explain 35.8%

[11] R^2 values: 0.02, 0.13 and 0.26 considered as weak, moderate and substantial respectively (Cohen, 1988).

of the variance of the endogenous construct *prospects* for Islamic home finance in the UK.

Besides the statistical significance of the structural model relationships (path coefficients), the study also assessed the meaningfulness of the effect size (f^2) as the p value does not necessarily identify whether or not the effect is in fact meaningful. The PLS-SEM algorithm was executed to determine the effect size (see Table 8.6) and the *accessibility* construct was found to have a considerably small effect (0.057) on the *prospects* for Islamic home finance in the UK, while *affordability* was revealed to have almost no effect (0.002). In contrast, *extendibility* and *authenticity* had fairly large effect sizes (f^2) on the endogenous variables such as *accessibility* and *prospects* (i.e., 0.336 and 0.243 respectively). To some extent, these findings replicate the path coefficient interpretations discussed above. For example, *affordability* cost-related aspects of Islamic home finance were perceived to have no meaningful effect at all on its *prospects*, whereas *authenticity* was found to have a relatively large effect. Meanwhile, *extendibility* had a substantial effect on *accessibility*.

Table 8. 6 *Effect Size (f2)*

	Accessibility	Affordability	Authenticity	Extendibility	Prospects
Accessibility					0.057
Affordability					0.002
Authenticity					0.243
Extendibility	0.336				0.009

Note: f^2 0.02 = small; 0.15 = medium; 0.35 = substantial

Further to assessing the significance of the R^2 values and effect size (f^2), the predictive power or relevance (Q^2) of the research model was also evaluated by

applying the blindfolding[12] procedure. The resultant value of predictive relevance (Q^2) was above 0 (see Table 8.7), affirming the adequate prediction power of the research model.

Table 8. 7 *Predictive Relevance (Q2)*

Endogenous Latent Variable	Q2 Value
Accessibility	0.147
Prospects	0.209

The study also conducted a post-hoc importance-performance matrix analysis (IPMA), or priority map analysis, to enrich the PLS-SEM analysis and to gain additional insights beyond testing the above hypotheses. The purpose of this step was to explore the performance and importance of each construct on the *prospects* for Islamic home finance so that policy makers and key stakeholders can take appropriate actions.

Interestingly, the *authenticity* construct lay in Quadrant 1 of the IPMA plot, as shown in Figure 8.1. This demonstrates that the mortgage brokers attached particularly high importance (0.419) and relatively high performance (46.13) to the *authenticity* of Islamic home finance, as compared to the other constructs.

[12] "Blindfolding is a sample reuse technique that (systematically) omits part of the data matrix and uses the model estimates to predict the omitted data." (Hair et al., 2017, p. 312).

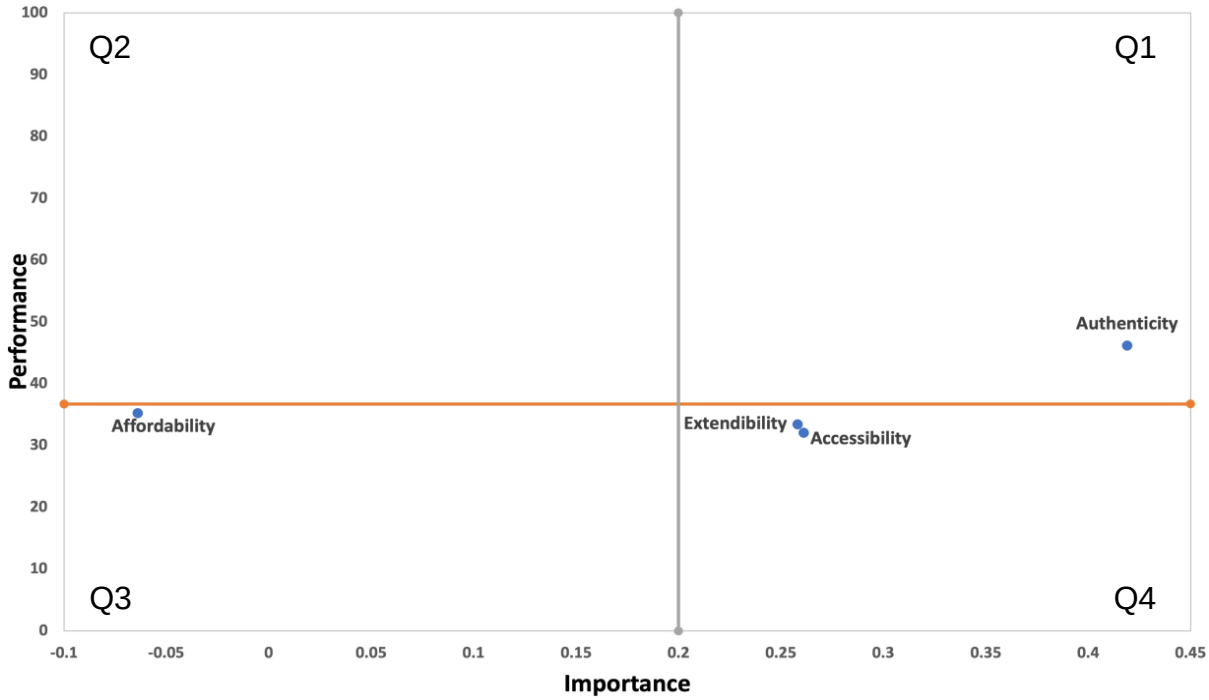

Figure 8. 1 *Importance-Performance Map for the Target Construct: Prospects (for IHF in the UK)*

This is possibly a good sign for Islamic banks, as the industry's experts believe that *authenticity* performs relatively well against other constructs. It is also the most relevant factor to the prospects for Islamic home finance. Based on this outcome, the policy makers should strive to preserve the *authenticity* construct with continued investments, as this could offer a potential competitive advantage for Islamic home finance. The *accessibility* and *extendibility* constructs fell in Quadrant 4, 'concentrate here', the most critical area of the priority matrix. This means that these constructs were considered very important by the mortgage brokers (importance scores of 0.261 and 0.258 respectively), but with a lower average level performance (32.02 and 33.41 respectively). Any constructs situated in this quadrant are considered to be performing less well than expected, representing major deficiencies in the products offered and posing a serious challenge to their

competitiveness. Thus, Islamic banks and policymakers should implement urgent corrective measures with the highest investment priority to improve the performance levels of *accessibility* and *extendibility*.

In contrast, the *affordability* construct landed in Quadrant 3, a low priority area. This signifies that the mortgage brokers considered this construct to be of low priority in the current scenario. This translates that the *affordability* (cost-related) attributes of Islamic home financing perform well (35.24), although not exceptionally well, and is considered to be relatively unimportant to mortgage brokers in the current scenario. This outcome suggests that the management or policy makers within Islamic banks should not be overly concerned with *affordability* and should focus instead on other constructs, such as extendibility and accessibility constructs.

8.3 Contribution to Research

This study contributes to the existing literature in a number of areas. One of the most important theoretical contributions of this study is the development of the conceptual framework and the validation of its corresponding reflective measurement scales. Another theoretical contribution of this research is the diversion from the ill-conceived consumer-orientated and Muslim-restricted dominated literature that is not only out-dated but also provides a one-sided view, with inconclusive and anecdotal evidence on the prospects of Islamic home finance in the UK. This study has addressed these outstanding gaps and attempted to predict the prospects for Islamic home finance in real-time, by

unbiasedly involving the much-ignored industry experts (mortgage brokers) providing a prediction on the prospects for Islamic home in the UK market.

This study has also made an important contribution by being the first to explore the impact of religion on the prospects for Islamic home finance in the UK. Up until now, no attempt has been made to assess the prospects for Islamic home finance from a multi-religious perspective, and it remained an unanswered question as to whether non-Muslims viewed the prospects for Islamic home finance in the same way as their Muslim counterparts. The one size fit all approach trend in research has arguably questioned the reliability of the existing literature due to a lack of religious diversity. By including religion (Muslim vs non-Muslim) as a categorical moderator and exploring its impact on the *prospects* of Islamic home finance, this research offers a striking breakthrough. The outcome of the group comparisons showing no significant difference between Muslims vs. non-Muslims financial experts in assessing the prospects of Islamic home finance is perhaps the most interesting theoretical contribution from this work.

Another compelling contribution of this study is in uncovering the impact of past events i.e., the subprime mortgage crisis, through the lens of mortgage brokers' experience as a moderator. The findings have made a substantial contribution to the existing literature by proclaiming that events such as the subprime crisis and the transformation of Islamic home finance have made no effect on mortgage brokers' views as to the prospects in the UK. Another important theoretical contribution is the unpredicted result of the insignificant effect of *affordability* on the *prospects* for Islamic home finance. Although, the outcomes of this study will

have great practical significance, theoretically this finding has to some extent eroded the commonly associated stigma associated with Islamic home finance and started a fresh debate for researchers. In addition, the application of the innovative PLS-SEM procedure, and IPMA analysis has set a new standard in the academic field.

In addition, publication of a research paper in a peer-reviewed journal (International Journal of Business and Society) and three papers presented in prestigious international conferences (Malaysian Finance Association Conference, 2018; 2019) endorse the significance, applicability, and theoretical contribution of the study.

In practical terms, the findings of this study provide valuable resources to Islamic banks that are currently operating in the UK, as well as overseas banks that are potentially planning to enter the UK market. For example, the findings of this research suggest that Islamic home finance is no longer viewed as an expensive product. This positive shift can potentially increase the prospects for Islamic home finance as a majority of previous studies (i.e., Tameme, 2009, Dar, 2004, Harsi, 2009) have indicated high cost as being a key factor affecting the prospects for Islamic home finance in the UK. Contrary to this, it appears that this shift in trend has not been translated and conveyed to potential customers as Islamic home finance products are still deeply perceived to be expensive products among potential clients. This finding provides a good platform to Islamic banks, financial community and policy makers to propagate this positive shift that has been commonly associated with Islamic home finance since its inception in the UK.

Another practical implication for the Islamic home finance industry is the issue of *authenticity,* which appears to be alarming, especially when viewed from the industry's experts' point of view. Given the fact that the vast majority of UK customers purchase home finance products through mortgage brokers, this poses a serious threat to the Islamic home finance industry in the UK as the views of mortgage brokers may negatively influence customers' decision-making process.

Similarly, another practical implication that can be drawn from the findings of this study is the serious issues relating to *extendibility* and *accessibility*. Unlike the affordability factor that Islamic banks have overcome over time, overcoming *extendibility* and *accessibility* poses an immense challenge for small Islamic banks with limited resources. On one hand, Islamic banks face a dilemma, for being restrictive makes Islamic home finance less extendible, while on the other hand small Islamic banks target the Muslim market where one fourth of the population is financially illiterate and struggles to comprehend the fundamentals of Islamic home finance. In this situation, one possible solution for Islamic banks is to streamline their products and move beyond the minority Muslim market to a wider market to increase their portfolio. The uniformity of the perception between Muslims and non-Muslims as well as experienced and novice mortgage brokers also sends a clear proposition to Islamic banks to broaden their marketing strategy to cover mortgage brokers from all backgrounds. In this regard, this study has provided a very good platform in the shape of an important performance priority matrix through which policy makers can align their strategies according to the placements of constructs in the priority matrix.

8.4 Limitations of the Study

This research has successfully addressed a number of gaps in the existing literature and led to a number of useful theoretical and practical insights. Nevertheless, this study has a number of limitations that should be considered and further research may be required to enhance the strengths of this study. The research model developed and assessed should not be envisaged as an ultimate framework, but instead as a start towards an optimal framework. The constructs incorporated in the research model were derived from the literature – the researcher's own experience, logic, and data obtained from the interviews from mortgage experts may not form a comprehensive set of constructs for this conceptual model and may be expanded on by others.

The sample size could be viewed as another limitation of this study. The study met the minimum sample size requirements suggested by different sample size estimation methods (i.e.,10-times rule, R^2 and F^2), however it would be interesting to evaluate the research model by using a larger data set to discover if the path coefficients significantly differ. Similarly, the use of non-probability sampling, i.e., judgemental or expert sampling, may attract some criticism as probability sampling is considered to provide more measurable precision (Sharma, 2005). One key reason for this drawback was that probability sampling was found to not only be excessively expensive and time-consuming, but there was also no up-to-date and accurate sampling frame available. As with any sampling technique judgemental sampling has its weaknesses, particularly when judgements about participant selection are ill-conceived or poorly considered. Consequently, this study

alleviated this weakness by ensuring to include only FCA qualified (Financial Conduct Authority) and certified mortgage consultants.

Further studies may use different sampling strategies (i.e., simple random sampling) to compare and enhance the accuracy of the findings. Similarly, the findings of this study can be cross examined and compared by employing different seasonal participants such as bankers, academics, and scholars who are experts in the field of Islamic home finance. Another weakness of this study may arise with regard to the generalisability of the findings due to regional limitation, as the majority of the data has been collected from London. Practically speaking, this limitation does not apply to this study as the mortgage brokers exposure is not restricted to a limited area, as they deal with a very broad clientele across the country. Another possible limitation of this study is that it is unclear whether the mortgage brokers' perspectives are based on the experience of home financing advice they provided to potential clients, or whether their views are simply derived from their theoretical knowledge or perceptions of the Islamic home finance industry.

From a technical point of view, the R^2 value for the key target construct, *prospects* (for the Islamic home finance industry) was 0.358, which is considered to have a high level of explanatory power or predictive accuracy as per the most commonly used Cohen's (1998) cut off values. However, this level of explanatory power may be conceived moderate according to Chin's (1998) R^2 values threshold. Nevertheless, R^2 values of 0.20 are considered high in disciplines such as consumer behaviour or in the social sciences (Hair et al., 2017). Therefore,

considering the nature of the study's R^2 value (0.358), this does represent a high level of predictive accuracy.

In essence, this study has filled the gaps by developing a sound and up-to-date conceptual framework for predicting the prospects for Islamic home finance in the UK from multi-religious and professional perspectives, thus fulfilling the objectives of the study that were outlined at the beginning of this research.

8.5 Suggestions for Future Research

Having mentioned the key limitations and suggested some possible improvements, this section highlights subject areas on which future research can focus. Firstly, future studies may expand and enhance the strength of this study by increasing the sample size and covering wider regions of the UK. Additionally, future research may also consider involving a broader cross-section of people from various sectors, such as academics, bankers, property lawyers, and other industry practitioners, including the regulators of Islamic banking players.

Similarly, further studies can exclusively involve mortgage brokers who have regularly provided Islamic home financing advice to potential clients to gain more real-life views on the subject. Apart from this, it may also be useful for future research to apply a different methodological approach, such as interviews to reinforce the findings.

Secondly, this study justifiably used partial least squares structural equation modelling (PLS-SEM), because the main purpose of the analysis was to test a

conceptual framework from a prediction perspective. Future studies can potentially use covariance based structural equation modelling (CB-SEM) with a large sample size, to test whether the model is a good fit. In addition, this study applied the best judgment and a parsimonious approach to build the conceptual framework. Further studies can extend or modify the conceptual framework by adding new latent variables, indicators, or inner relations to refine the framework.

Thirdly, the results derived from the importance-performance matrix analysis (IPMA) can be further expanded on with additional items to investigate the importance and performance level of each item, to assist with managerial implications. This study has also left room to expand the IPMA analysis on a group basis to better compare the group specific outcomes. Further to this, PLS-SEM analysis can be further enhanced by employing other recently introduced advance analyses such as PLS-predict.

Fourthly, the proposed conceptual model might be applied (with relevant modifications) in other nations, especially those with similar demographic settings i.e., Germany, France, Singapore, and the USA. Finally, although this study is up to date, the findings may vary due to the constantly changing economic and financial environment. In this case, further research would be needed in the wake of the fluctuating economic and financial events.

To conclude, this research has successfully met its aim and objectives by developing an up-to-date and innovative conceptual model to assess the prospects for Islamic home finance in the UK from multi-religious and industry's perspectives.

References

Abdul-Razak, D., & Abduh, M. (2012). Customers attitude towards diminishing partnership home financing in Islamic Banking. In *American Journal of Applied Sciences* (Vol. 9, Issue 4, pp. 593–599). https://doi.org/10.3844/ajassp.2012.593.599

Abdul-Rehman, A. (2012). Customer satisfaction and service quality in Islamic banking: A comparative study in Pakistan, United Arab Emirates and United Kingdom. *Qualitative Research in Financial Markets*, *4*(2/3), 165–175. https://doi.org/10.1108/17554171211252501

Abdullah, A. (2016). Examining US approvals of Islamic financing products and the Islamic theory of lawful profit. *International Journal of Islamic and Middle Eastern Finance and Management*, *9*(4), 532–550. https://doi.org/10.1108/imefm-09-2015-0107

Abdullrahim, N., & Robson, J. (2017). The importance of service quality in British Muslim's choice of an Islamic or non-Islamic bank account. *Journal of Financial Services Marketing*, *22*(2), 54–63. https://doi.org/10.1057/s41264-017-0025-6

Acadata. (2016). *Which house price index?* LSL Acadata. http://www.acadata.co.uk/Which%20House%20Price%20Index%20Shortform%2010.05.16.pdf

Afthanorhan, A., Awang, Z., & Mamat, M. (2016). A comparative study between GSCA-SEM and PLS-SEM. *MJ Journal on Statistics and Probability*, *1*(1), 63–72. https://doi.org/https://doi.org/10.14419/jsp.v1i1.28

Ahmad, A. U. F. (2010). *Developments in Islamic banking practice: The experience of Bangladesh*. Universal Publishers.

Ahmad, A. U. F. (2014). The cross-products analysis of Islamic housing finance market: A case of the UK. *Journal of Islamic Economics Banking and Finance*, *10*(3). https://doi.org/10.12816/0029041

Ahmed, T., Kabir, S., & Aziz, A. (2020). Exploring the prospects for Islamic home finance in the UK: Evidence from the industry practitioners' perspective. *International Journal of Business & Society*, *21*(1), 353–368.

Ainley, M., Mashayekhi, A., Hicks, R., Rahman, A., & Ravalia, A. (2007). *Islamic finance in the UK: Regulation and challenges*. The Financial Services Authority. https://www.isfin.net/sites/isfin.com/files/islamic_finance_in_the_uk.pdf

Akbar, S., Shah, S. Z. A., & Kalmadi, S. (2012). An investigation of user perceptions of Islamic banking practices in the United Kingdom. *International Journal of Islamic and Middle Eastern Finance and Management*, *5*(4), 353–370.

Akhtar, U. M. (2015). Principles of Islamic finance: Prohibition of riba, gharar and maysir. *MPRA, 67711*.

Alfatakh, A. (2019, January 9). *It is 2019. BBA and bai al inah are old News.* Islamic Bankers Resource Centre. https://islamicbankers.me/tag/criticism/

Al Rayan Bank. (2015). Al Rayan Bank posts a profit and announces its strongest performance to date. Al Rayan Bank. https://www.alrayanbank.co.uk/useful-info-tools/about-us/latest-news/jan-dec-2015/al-rayan-bank-posts-a-profit-and-announces-its-strongest-performance-to-date/

AL-Mutairi, H. (2010). *A comparison between Islamic and conventional home financing in Kuwait: Client perception of the facilities offered by the National Bank of Kuwait and Kuwait Finance House* (Thesis). University of Durham. http://etheses.dur.ac.uk/543/

Al-Zumai, F., & Al-Wasmi, M. (2016). 2008 Financial crisis and Islamic finance: An unrealized opportunity. *International Journal for the Semiotics of Law - Revue Internationale de Sémiotique Juridique*, *29*(2), 455–472. https://doi.org/10.1007/s11196-016-9469-6

Alam, I., & Seifzadeh, P. (2020). Marketing Islamic financial services: A review, critique, and agenda for future research. *Journal of Risk and Financial Management*, *13*(1), 1–19. https://doi.org/10.3390/jrfm13010012

Ali, F., Mostafa Rasoolimanesh, S., & Cobanoglu, C. (2018). *Applying partial least squares in tourism and hospitality research*. Emerald Group Publishing.

Alissa, A. (2018). *Islamic Mortgages: A comparative study to improve the legal and financial system of mortgages in the Royal Kingdom of Saudi Arabia with a regulatory analysis of the US and UK, and case analyses of the UK, Sharjah, Dubai and Saudi Arabia* (Thesis). University of Westminster

Amin, H. (2008). Choice criteria for Islamic home financing: Empirical investigation among Malaysian bank customers. *International Journal of Housing Markets and Analysis; Bingley*, *1*(3), 256–274.

Amin, H. (2017). Consumer behaviour of Islamic home financing: Investigating its determinants from the theory of Islamic consumer behaviour. *Humanomics*, *33*(4), 517–548. https://doi.org/10.1108/H-12-2016-0102

Amin, H., Abdul Rahman, A. R., Abdul Razak, D., & Rizal, H. (2017). Consumer attitude and preference in the Islamic mortgage sector: A study of Malaysian consumers. *Management Research Review*, *40*(1), 95–115. https://doi.org/10.1108/mrr-07-2015-0159

Amin, H., Abdul-Rahman, A.-R., & Abdul Razak, D. (2014). Theory of Islamic consumer behaviour. *Journal of Islamic Marketing*, *5*(2), 273–301. https://doi.org/10.1108/jima-06-2013-0042

Amin, H., Abdul-Rahman, A.-R., & Abdul-Razak, D. (2016). Malaysian consumers' willingness to choose Islamic mortgage products. *International Journal of Bank Marketing*, *34*(6), 868–884. https://doi.org/10.1108/ijbm-06-2015-0099

Amin, M. (2010a, June 21). *Why has retail Islamic banking not taken off in the UK?* http://www.mohammedamin.com/Islamic_finance/Why_has_retail_Islamic_banking_not_taken_off_in_the_UK.html

Amin, M. (2010b, September 1). The *UK Islamic banking scene*. http://www.mohammedamin.com/Islamic_finance/UK-Islamic-banking-scene.html

Amin, M. (2011, March 25). *A simple introduction to Islamic mortgages*. http://www.mohammedamin.com/Islamic_finance/Simple-introduction-to-Islamic-mortgages.html

Amin, M. (2017, March 26). *Why Islamic mortgages normally cost more than conventional mortgages*. http://www.mohammedamin.com/Islamic_finance/Why-Islamic-mortgages-cost-more.html

Andres, H. P. (2011). Shared mental model development during technology-mediated collaboration: *International Journal of E-Collaboration*, *7*(3), 14–30. https://doi.org/10.4018/ijec.2011070102

Aris, N., Othman, R., Azli, R., & Arshad, R. (2012). Islamic house financing: Comparison between Bai' Bithamin Ajil (BBA) and Musharakah Mutanaqisah (MM). *African Journal of Business Management*, *6*(1), 266–273. https://doi.org/10.5897/ajbm11.2042

AsiaOne. (2015, November 4). *More non-Muslims using Islamic finance in Malaysia*. http://news.asiaone.com/news/business/more-non-muslims-using-islamic-finance-malaysia

Askari, H., Iqbal, Z., & Mirakhor, A. (2015). *Introduction to Islamic Economics: Theory and Application*. Wiley.

Avkiran, N. K., & Ringle, C. M. (2018). *Partial least squares structural equation modeling: Recent advances in banking and finance*. Springer.

Awang, Z. (2015). *SEM Made Simple: A gentle approach to learning structural equation modelling*. MPWS Rich Publication.

Awang, Z., Afthanorhan, A., & Mamat, M. (2016). The Likert scale analysis using parametric based Structural Equation Modeling (SEM). *Computational Methods in Social Sciences (CMSS)*, *4*(1), 13–21.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Barclay, D. W., Higgins, C. A., & Thompson, R. (1995). The partial least squares approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies: Special Issue on Research Methodology*, *2*(2), 284–324.

Becker, J.-M., Rai, A., Ringle, C. M., & Völckner, F. (2013). Discovering unobserved heterogeneity in structural equation models to avert validity threats. *MIS Quarterly, 37*(3), 665–694. https://doi.org/10.25300/MISQ/2013/37.3.01

Belouafi, A., & Chachi, A. (2014). Islamic Finance in the United Kingdom : Factors behind its development and growth. *Islamic Economic Studies*, *22*(1), 37–78. https://doi.org/10.12816/0004130

Benamraoui, A., Boukrami, E., Dafgard, C., & Karbhari, Y. (2020). An empirical investigation of the regulatory and non-regulatory challenges of the UK Islamic retail banking. *Journal of Islamic Business and Management (JIBM)*, *10*(02), 303–322. https://doi.org/10.26501/jibm/2020.1002-002

Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research, 16*(1), 78–117. https://doi.org/10.1177/0049124187016001004

Blaikie, N., & Priest, J. (2019). *Designing social research: The logic of anticipation* (3rd ed.). Polity.

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, *6*, 149. https://doi.org/10.3389/fpubh.2018.00149

Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin, 110*(2), 305–314. https://doi.org/10.1037/0033-2909.110.2.305

Bryman, A. (2015). *Social research methods*. Oxford University Press.

Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press.

Byrne, B. M. (2001). *Structural equation modeling with AMOS*. Lawrence Erlbaum Associates.

Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed.). Routledge.

Cakir, S., & Raei, F. (2007). *Sukuk vs. Eurobonds: Is there a difference in value-at-risk?* International Monetary Fund.

Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2001). *Qualitative marketing research*. Sage.

Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. *Journal of Thoracic Disease*, *7*(11), E537–E540.

Chapra, M. U. (2011). The global financial crisis: Can Islamic finance help? In J. Langton, C. Trullols, & A. Q. Turkistani (Eds.), *Islamic Economics and Finance*. Palgrave Macmillan.

Chater, N. (2015). Mind the gap: Restoring consumer trust in financial services. [Financial Services Compensation Scheme]. http://www.fscs.org.uk/globalassets/press-releases/20151111-fscs-trust-white-paper-final.pdf

Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business* research (pp. 295–336). Lawrence Erlbaum Associates, Publishers.

Chin, W. W., & Dibbern, J. (2010). An Introduction to a permutation based procedure for multi-group PLS analysis: Results of tests of differences on simulated data and a cross cultural analysis of the sourcing of information system services between Germany and the USA. In V. Esposito Vinzi (Ed.), *Handbook of partial least squares: Concepts, methods and applications* (pp. 171–193). Springer.

Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 307–341). Sage Publications.

Chong, H. Y. (1994). Abduction? Deduction? Induction? Is there a logic of exploratory data analysis? Presented at the annual meeting of the American educational research association, New Orleans, Louisiana. https://files.eric.ed.gov/fulltext/ED376173.pdf

Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, *16*(1), 64. https://doi.org/10.2307/3150876

Clark, A. (2012, October 5). *Bank scraps Islamic mortgages and loans*. The Times. https://www.thetimes.co.uk/article/bank-scraps-islamic-mortgages-and-loans-dghjgfnqz69

Cohen, J. (1988). *Statistical power analysis*. Lawrence Erlbaum Associates.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1). http://www2.psych.ubc.ca/~schaller/528Readings/Cohen1992.pdf

Converse, J. M. (2011). *Survey research in the United States: Roots and emergence 1890-1960*. Transaction Publishers.

Creswell, J. W. (2021). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). SAGE Publications, Inc.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. https://doi.org/10.1007/BF02310555

Cumbo, J. (2005). *Lloyds' Islamic mortgage increases buyers' choices*. Financial Times. http://www.ft.com/cms/s/0/435f8b62-9d9c-11d9-a227-00000e2511c8.html?ft_site=falcon&desktop=true

Dar, H. (2004). Demand for Islamic financial services in the UK: chasing a mirage? *Economics Research Paper*, (04-11). https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/335/3/TSIJ.pdf

de Leeuw, E. D., Hox, J. J., & Dillman, D. A. (2008). The cornerstones of survey research. In E. D. de Leeuw, J. J. Hox, & D. A. Dillman (Eds.), *International handbook of survey methodology*. Taylor & Francis.

De Muth, J. E. (2014). *Basic statistics and pharmaceutical statistical applications* (3rd ed.). CRC Press, Taylor & Francis Group.

Delener, N. (1990). The effects of religious factors on perceived risk in durable goods purchase decisions. *Journal of Consumer Marketing, 7*(3), 27–38. https://doi.org/10.1108/EUM0000000002580

DeVellis, R. F. (2012). *Scale development: Theory and applications*. SAGE Publications.

DeVellis, R. F. (2017). *Scale Development: Theory and Applications*. SAGE Publications.

Dijkstra, T. K., & Henseler, J. (2015). Consistent partial Least squares path modeling. *MIS Quarterly*, *39*(2), 297–316. https://doi.org/10.25300/misq/2015/39.2.02

Djeri, L., Stamenković, P., Blešić, I., Milićević, S., & Ivkov, M. (2018). An importance-performance analysis of destination competitiveness factors: Case of Jablanica district in Serbia. *Economic Research-Ekonomska Istraživanja, 31*(1), 811–826. https://doi.org/10.1080/1331677X.2018.1456351

do Valle, P. O., & Assaker, G. (2016). Using partial least squares structural equation modeling in tourism research: A review of past research and recommendations for future applications. *Journal of Travel Research*, *55*(6), 695–708. https://doi.org/10.1177/0047287515569779

Douglas, C. H. (1924). *Social credit principles*. K.R.P. Publications.

Dudovskiy, J. (2018). *The ultimate guide to writing a dissertation in business studies: A step-by-step assistance*.

Dwyer, L., Dragićević, V., Armenski, T., Mihalič, T., & Knežević Cvelbar, L. (2014). Achieving destination competitiveness: An importance–performance analysis of Serbia. Current Issues in Tourism, 19(13), 1309–1336. https://doi.org/10.1080/13683500.2014.944487

Edbiz Consulting. (2019). *Islamic Finance Country Index – IFCI*. http://gifr.net/publications/gifr2019/ifci.pdf

Edwards, T., Tregaskis, O., Edwards, P., Ferner, A., Marginson, P., Arrowsmith, J., Arrowsmith, J., Adam, D., Meyer, M., & Budjanovcanin, A. (2009). *Charting the contours of multinationals in Britain*. De Montford University.

El Qorchi, M. (2005). Islamic finance gears up. *Finance and development*, *42*(4), International Monetary Fund

Ellul, D. A. B. (2008). *Risk perception, awareness and prevention measures to reduce underage drinking and the illegal purchase of alcohol in Malta*. Universal-Publishers.

Essoo, N., & Dibb, S. (2004). Religious influences on shopping behaviour: An exploratory study. *Journal of Marketing Management*, *20*(7–8), 683–712. https://doi.org/10.1362/0267257041838728

Ethica. (2017). *Ethica's handbook of Islamic finance*. http://www.ethicainstitute.com/Ethica-Handbook-of-Islamic-Finance-2017.pdf

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1–4.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling* (1st ed.). University of Akron Press.

Farooq, R. (2016). Role of structural equation modeling in scale development. *Journal of Advances in Management Research; Bingley*, *13*(1), 75–91.

Faux, J. (2010). Pre-testing survey instruments. *Global Review of Accounting and Finance, 1*(1), 100–111.

Fink, A. (2002). *How to ask Survey questions*. Sage.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Forza, C. (2009). Surveys. In C. Karlsson (Ed.), *Researching operations management* (pp. 84–161). Routledge.

Fry, A. (2014). Challenging conditions in UK retail for Islamic finance. https://kae.com/ideabank/challenging-conditions-in-uk-retail-for-islamic-finance/

Furqani, H., & Mulyany, R. (2009). Islamic banking and economic growth: Empirical evidence from Malaysia. *Journal of Economic Cooperation & Development*, *30*(2), 59–74. http://oicvet.org/files/article/308.pdf

Gadzo, S. G., Kportorgbi, H. K., & Gatsi, J. G. (2019). Credit risk and operational risk on financial performance of universal banks in Ghana: A partial least squared structural equation model (PLS-SEM) approach. *Cogent Economics & Finance*, *7*(1). https://doi.org/10.1080/23322039.2019.1589406

Galadima, W. M. (2015). *Islamic finance in the United Kingdom* (Thesis). Newcastle University. https://theses.ncl.ac.uk/dspace/bitstream/10443/2919/1/Galadima%2c%20W%202015.pdf

Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing, 63*(2), 70. https://doi.org/10.2307/1251946

Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using pls-graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, *16*. https://doi.org/10.17705/1CAIS.01605

Gfeller, B., Ryan-Nicholls, K., Gibson, R., Pachkowski, K., & Shirray, N. (2015). *Rural community health and well-being: A guide to action*. (R. Annis, F. Racher, & M. Beattie, Eds.). Rural Development Institute.

Ghauri, P. N., & Grønhaug, K. (2005). *Research methods in business studies: A practical guide*. Pearson Education.

Godlewski, C. J., Turk-Ariss, R., & Weill, L. (2013). Sukuk vs. conventional bonds: A stock market perspective. *Journal of Comparative Economics*, *41*(3), 745–761. doi:10.1016/j.jce.2013.02.006

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, *18*(1), 185–214. https://doi.org/10.1080/07421222.2001.11045669

Goodhue, D. L., Lewis, W., & Thompson, R. (2012). Does PLS have advantages for small sample size or non-normal data? *The Mississippi Quarterly*, *36*(3), 981–1001.

Gordon, M. (2020, December 22). *What is an Islamic mortgage?* Comparethemarket. https://www.comparethemarket.com/mortgages/content/islamic-mortgages/

GOV.UK. (2013, October 28). *Opportunities for Islamic finance in the UK*. https://www.gov.uk/government/news/opportunities-for-islamic-finance-in-the-uk

GOV.UK. (2019, September 9). *Practice guide 69: Islamic financing*. https://www.gov.uk/government/publications/islamic-financing/practice-guide-69-islamic-financing#:%7E:text=The%20Diminishing%20Musharaka%20mode%20of,it%20is%20repaid%20in%20stages.

GOV.UK. (2020, December 30). *Practice guide 69: Islamic financing*. https://www.gov.uk/government/publications/islamic-financing/practice-guide-69-islamic-financing

Green, N. (2020, December 3). *What is an Islamic mortgage and how do they work?* Unbiased.Co.Uk. https://www.unbiased.co.uk/life/homes-property/what-is-an-islamic-mortgage-and-how-do-they-work

Greuning, H., & Iqbal, Z. (2008). *Risk analysis for Islamic banks*. World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/6923/424810PUB00ISB101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y

Hair, F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7. ed.). Pearson.

Hair, J. F., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis: A global perspective* (Global ed.). Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F., Ringle, C. M., Gudergan, S. P., Fischer, A., Nitzl, C., & Menictas, C. (2019). Partial least squares structural equation modeling-based discrete choice modeling: An illustration in modeling retailer choice. *Business Research*, *12*(1), 115–142. https://doi.org/10.1007/s40685-018-0072-4

Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: A review of past practices and recommendations for future applications. *Long Range Planning*, *45*(5–6), 320–340. https://doi.org/10.1016/j.lrp.2012.09.008

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). *Advanced issues in partial least squares structural equation modeling*. Sage.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Hasan, M., & Dridi, J. (2011). The effects of the global crisis on Islamic and conventional banks: A comparative study. *Journal of International Commerce, Economics and Policy*, 02(02), 163–200. https://doi.org/10.1142/S1793993311000270

Hauser, A. (2020, December). *Why Islamic finance has an important role to play in supporting the recovery from Covid – and how the Bank of England's new alternative liquidity facility can help*. Bank of England. https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/why-islamic-finance-has-an-important-role-to-play-in-supporting-the-recovery-from-covid.pdf?la=en&hash=58B28008CE026D33B0590F7DB5CDA84DAE723CAD

Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. Structural Equation Modeling: *A Multidisciplinary Journal*, 17(1), 82–109. https://doi.org/10.1080/10705510903439003

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International Marketing Review*, 33(3), 405–431. https://doi.org/10.1108/IMR-09-2014-0304

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *New challenges to international marketing* (pp. 277–319). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hersi, W. M. (2009). *The role of Islamic finance in tackling financial exclusion in the UK* (Thesis). Durham University. http://etheses.dur.ac.uk/23/

Hesse, H., Andreas, J., & SoléJuan. (2008). Trends and challenges in Islamic finance. *World Economics*, *9*(2), 175–193.

Hock, C., Ringle, C. M., & Sarstedt, M. (2010). Management of multi-purpose stadiums: Importance and performance measurement of service interfaces. *International Journal of Services Technology and Management, 14*(2/3), 188. https://doi.org/10.1504/IJSTM.2010.034327

Hudson, L. A., & Ozanne, J. L. (1988). Alternative ways of seeking knowledge in consumer research. *The Journal of Consumer Research*, *14*(4), 508–521.

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, *20*(2), 195–204. https://doi.org/https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195:AID-SMJ13>3.0.CO;2-7

Hult, G. T. M., Ketchen, D. J., Griffith, D. A., Finnegan, C. A., Gonzalez-Padron, T., Harmancioglu, N., Huang, Y., Talay, M. B., & Cavusgil, S. T. (2008). Data equivalence in cross-cultural international business research: Assessment and guidelines. *Journal of International Business Studies*, *39*(6), 1027–1044. https://doi.org/10.1057/palgrave.jibs.8400396

Hussain, M. (2014). Performance and potential of Islamic finance: A contextual study in the UK. *Journal of Shi'a Islamic Studies*, *7*(4), 441–510. https://doi.org/10.1353/isl.2014.0038

ICD-Refinitiv. (2019). *Islamic finance development indicator*. ICD Refinitiv. https://www.zawya.com/islamic-finance-development-indicator/

ICD-Refinitiv. (2020). *Islamic finance development report 2020: Progressing through adversity*. https://www.zawya.com/ifg-publications/report/20201208110406294.pdf/?refKey=IFG-fbae0a6e-b0e2-4800-ba30-c2f700bcf6d8

ICD-Refinitiv. (2020). *Islamic finance development report 2020*. https://www.zawya.com/ifg-publications/report/20201208110406294.pdf/?refKey=IFG-c9a6b28d-6e17-4aea-8918-44c9da749bad

IMF. (2017). The IMF and Islamic finance. https://www.imf.org/external/themes/islamicfinance/

Intermediary Mortgage Lenders Association. (2015). *The changing face of mortgage distribution*. Http://Www.Imla.Org.Uk/Resources/Publications/the-Changing-Face-

of-Mortgage-Distribution.Pdf. http://www.imla.org.uk/resources/publications/the-changing-face-of-mortgage-distribution.pdf

Iqbal, Z., & Mirakhor, A. (2006). *An introduction to Islamic finance: Theory and practice* (2nd ed.). Wiley.

Iqbal, Z., & Mirakhor, A. (2011). *An introduction to Islamic finance: Theory and practice*. Wiley.

Jachowicz, A., & García-Machado, J. (2019). Assessing overall fit and invariance in a PLS model of PIGS and V4 countries' financial systems. In J. Gil-Lafuente, D. Marino, & F. C. Morabito (Eds.), *Economy, business and uncertainty: New ideas for a Euro-Mediterranean industrial policy* (Vol. 180). Springer International Publishing. https://doi.org/10.1007/978-3-030-00677-8

Jannoo, Z., Yap, B. W., Auchoybur, N., & Lazim, M. A. (2014). The effect of nonnormality on CB-SEM and PLS-SEM path estimates. *International Journal of Mathematical, Computational, Physical and Quantum Engineering*, *8*(2), 285–291. https://doi.org/10.5281/ZENODO.1090631

Jenkins, P., & Hall, C. (2012). HSBC's Islamic closures highlight dilemma. https://www.ft.com/content/bdb5f212-0f1c-11e2-9343-00144feabdc0

Jöreskog, K. G. (1970). A general method for analysis of covariance structures. *Biometrika*, *57*(2), 239–251. https://doi.org/10.1093/biomet/57.2.239

Jöreskog, K. G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, *36*(2), 109–133. https://doi.org/10.1007/bf02291393

Kaakeh, A., Hassan, M. K., & van Hemmen Almazor, S. F. (2018). Attitude of Muslim minority in Spain towards Islamic finance. *International Journal of Islamic and Middle Eastern Finance and Management*, *11*(2), 213–230. https://doi.org/10.1108/imefm-11-2017-0306

Kasunic, M. (2005). *Designing an effective survey*. Carnegie Mellon - Software Engineering Institute.

Kaufmann, L., Gaeckler, J. (2015). A structured review of partial least squares in supply chain management research. *Journal of Purchasing and Supply Management*, *21*(4), 259–272. https://doi.org/10.1016/j.pursup.2015.04.005

Keil, M., Saarinen, T., Tan, B. C. Y., Tuunainen, V., Wassenaar, A., & Wei, K.-K. (2000). A cross-cultural study on escalation of commitment behavior in software projects. *Management Information Systems Quarterly, 24*(2), 299–325.

Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care: Journal of the International Society for Quality in Health Care / ISQua*, *15*(3), 261–266.

Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, *32*(5), 232–240. https://doi.org/10.1016/j.jom.2014.03.004

Kettell, B. (2011a). *Islamic finance in a nutshell: A guide for non-specialists*. Wiley.

Kettell, B. (2011b). *Case studies in Islamic banking and finance*. John Wiley & Sons.

Khan, S. (2012). *Islamic finance in the UK: Non-Muslims' perception and awareness*. Lap Lambert Academic Publishing.

Kirkman, W. (2018, July 2). *More and more home buyers are using a mortgage broker*. This Is Money. https://www.thisismoney.co.uk/money/mortgageshome/article-5855849/More-home-buyers-using-mortgage-broker-right-way-go.html

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Knight, B. J. (2010, July 18). *Big banks go cold on Islamic products*. The Independent. http://www.independent.co.uk/money/spend-save/big-banks-go-cold-on-islamic-products-2029081.html

Kock, N. (2016). Non-normality propagation among latent variables and indicators in PLS-SEM simulations. *Journal of Modern Applied Statistical Methods*, *15*(1), 299–315. https://doi.org/10.22237/jmasm/1462076100

Kock, N. (2018). Single missing data imputation in PLS-based structural equation modeling. *Journal of Modern Applied Statistical Methods*, *17*(1), eP2712. https://doi.org/10.22237/jmasm/1525133160

Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods: Sample size in PLS-based SEM. *Information Systems Journal*, *28*(1), 227–261. Barclay, D. W., Higgins, C. A., & Thompson, R.

Krosnick, J. A., & Presser, S. (2009). *Question and Questionnaire Design*. Elsevier.

Kuran, T. (2006). Islamism and economics: Policy prescriptions for a free society. In S. Behdad & F. Nomani (Eds.), *Islam and the everyday world: Public policy dilemmas*. Routledge.

Lahsasna, A., Hassan, K. M., & Ahmad, R. (2018). *Forward lease Sukuk in Islamic capital markets: Structure and governing rules* (1st ed.). Palgrave Macmillan.

Lani, J. (2009, April 23). Sample size justification. http://researchsamplesize.blogspot.com/2009/04/sample-size-justification.html

Lee, L., Petter, S., Fayard, D., & Robinson, S. (2011). On the use of partial least squares path modeling in accounting research. *International Journal of Accounting Information Systems*, *12*(4), 305–328. https://doi.org/10.1016/j.accinf.2011.05.002

Lee, Y. N. (2017, December 20). Islamic finance is becoming so attractive that even non-Muslims want in. https://www.cnbc.com/2017/12/19/sukuk-islamic-finance-grows-in-non-muslim-countries.html

Leiner, D. J. (2013). Too fast, too straight, too weird: Post hoc identification of meaningless data in internet surveys. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2361661

Lohmöller, J.-B. (1989). *Latent variable path modeling with partial least squares*. Springer-Verlag.

Lowry, P. B., & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to

choose it and how to use it. *IEEE Transactions on Professional Communication*, *57*(2), 123–146. https://doi.org/10.1109/TPC.2014.2312452

Macnee, C. L., & McCabe, S. (2008). *Understanding nursing research: Using research in evidence-based practice*. Lippincott Williams & Wilkins.

Magasi, S., Ryan, G., Revicki, D., Lenderking, W., Hays, R. D., Brod, M., Snyder, C., Boers, M., & Cella, D. (2012). Content validity of patient-reported outcome measures: Perspectives from a PROMIS meeting. Quality of Life Research: *An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, *21*(5), 739–746.

Malhotra, N., Krosnick, J. A., & Thomas, R. K. (2009). Optimal design of branching questions to measure bipolar constructs. *Public Opinion Quarterly*, *73*(2), 304–324. https://doi.org/10.1093/poq/nfp023

Mansori, S. (2012). Impact of religion affiliation and religiosity on consumer innovativeness: The evidence of Malaysia. *World Applied Sciences Journal*, 17(3), 301–307.

Mansour, W., Ben Abdelhamid, M., Masood, O., & Niazi, G. S. K. (2010). Islamic banking and customers' preferences: the case of the UK. *Qualitative Research in Financial Markets*, *2*(3), 185–199. https://doi.org/10.1108/17554171011091746

Mark, T. (2017). Difference between deductive reasoning and Inductive reasoning. http://www.differencebetween.net/language/difference-between-deductive-reasoning-and-inductive-reasoning/

Masiukiewicz, P. (2017). Expansion of Islamic finance in Europe. *Journal of Intercultural Management*, *9*(2), 31–51. https://doi.org/10.1515/joim-2017-0007

Masood, O., & Bellalah, M. (2013). Islamic mortgages. In M. Bellalah & O. Masood (Eds.), *Islamic Banking and Finance* (pp. 215–260). Cambridge Scholars Publisher.

Masood, O., Chichti, J. E., Mansour, W., & Amin, Q. A. (2009a). Role of Islamic mortgage in UK. *International Journal of Monetary Economics and Finance*, *2*(3/4), 366. https://doi.org/10.1504/ijmef.2009.029069

Masood, O., Chichti, J. E., Mansour, W., & Iqbal, M. (2009b). "Islamic bank of Britain" case study analysis. *International Journal of Monetary Economics and Finance*, *2*(3-4), 206–220.

Mathras, D., Cohen, A. B., Mandel, N., & Mick, D. G. (2016). The effects of religion on consumer behavior: A conceptual framework and research agenda. *Journal of Consumer Psychology*, *26*(2), 298–311. https://doi.org/10.1016/j.jcps.2015.08.001

Matthews, L. (2017). Applying multigroup analysis in PLS-SEM: A step-by-step process. In H. Latan & R. Noonan (Eds.), *Partial least squares path modeling: Basic concepts, methodological issues and applications*. Springer.

Matthews, R., Tlemsani, I., & Siddiqui, A. (2003). Recent developments in the market for Islamic mortgages: Theory and practice. *Review of Islamic Finance*, *14*, 49–65.

McQuarrie, E. F. (2015). *The Market research toolbox: A concise guide for beginners*. Sage Publications.

Medoff, N. J., & Kaye, B. (2013). *Electronic media: Then, now, and later*. Taylor & Francis.

Memon, K. & Kamla, R. (2011), Islamic banking as an ethical alternative to conventional banking in the West: Ambiguous notions by non-Muslims in the UK. A working paper, University of Dundee.

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. Annals of Spiru Haret University. *Economic Series, 17*(4), 59–82. https://doi.org/10.26458/1746

Mohd Yusof, R., Kassim, S. H., Shabri A. Majid, M., & Hamid, Z. (2011). Determining the viability of rental price to benchmark Islamic home financing products. *Benchmarking: An International Journal*, *18*(1), 69–85. https://doi.org/10.1108/14635771111109823

Mokhlis, S. (2006). *The influence of religion on retail patronage behaviour in Malaysia* (Thesis). University of Stirling. https://core.ac.uk/download/pdf/9047218.pdf

Moneyfacts. (2021, March 8). *More mortgage deals on the market | moneyfacts.co.uk*. https://moneyfacts.co.uk/news/mortgages/more-mortgage-deals-on-the-market-but-rates-continue-to-rise/

Morgado, F. F. R., Meireles, J. F. F., Neves, C. M., Amaral, A. C. S., & Ferreira, M. E. C. (2017). Scale development: Ten main limitations and recommendations to improve future research practices. *Psicologia: Reflexão E Crítica*, *30*. https://doi.org/10.1186/s41155-016-0057-1

Morgan, G. A., & Griego, O. V. (1998). *Easy use and interpretation of SPSS for Windows: Answering research questions with statistics*. Lawrence Erlbaum Associates.

Muslim Council of Britain. (2015). British Muslims in numbers: A demographic, socio-economic and health profile of Muslims in Britain drawing on the 2011 census. http://www.mcb.org.uk/wp-content/uploads/2015/02/MCBCensusReport_2015.pdf

Muwazir, M.R., Hassan, H.S., Hadi, N.A., Widyastuti, S., & Said, M. (2020). An Analysis of al-Bay' Bithaman Ajil Contract in Islamic Financing Products: A Case Study in Brunei.

Nitzl, C. (2016). The use of partial least squares structural equation modelling (PLS-SEM) in management accounting research: Directions for future theory development. *Journal of Accounting Literature*, *37*, 19–35. https://doi.org/10.1016/j.acclit.2016.09.003

Nitzl, C. (2018). Management accounting and partial least squares-structural equation modelling (PLS-SEM): Some Illustrative examples. In *Partial Least Squares Structural Equation Modeling* (pp. 211–229). https://doi.org/10.1007/978-3-319-71691-6_7

Noar, S. M. (2003). The role of structural equation modeling in scale development. *Structural Equation Modeling: A Multidisciplinary Journal*, *10*(4), 622–647.

Northern Ireland Statistics and Research Agency. (2011). *2011 Census*. https://www.nisra.gov.uk/statistics/census/2011-census

Office for National Statistics. (2001). *2001 Census*. https://www.ons.gov.uk/census/2001censusandearlier

Office for National Statistics. (2011). *Census 2011*. https://www.ons.gov.uk/census/2011census

Ormanovic, S., Ciric, A., Talovic, M., Alic, H., Jeleskovic, E., & Causevic, D. (2017). Importance-performance analysis: Different approaches. *Acta Kinesiologica*, *11*, 58–66.

Osborne, H. (2016, September 22). First-time buyers must wait seven years longer for home in south-east England. *The Guardian*. http://www.theguardian.com/money/2016/sep/23/first-time-buyers-south-east-london-seven-year-wait

Palys, T. S. (2003). *Research decisions: Quantitative and qualitative perspectives*. Scarborough, Ont.: Thomson Nelson.

Paul, P. J., II. (1987). *Sollicitudo rei socialis*. *20*. http://www.catholiceducation.org.uk/images/Election_resouces/SOLLICITUDO_REI_SOCIALIS.pdf

Peng, D. X., & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, *30*(6), 467–480. https://doi.org/10.1016/j.jom.2012.06.002

Pew Research Center. (2017, November 29). *5 facts about the Muslim population in Europe*. Pew Research Center. http://www.pewresearch.org/fact-tank/2017/11/29/5-facts-about-the-muslim-population-in-europe/

Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences. Acta Psychologica, 104(1), 1–15. https://doi.org/10.1016/s0001-6918(99)00050-5

Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. Developmental Review, 41, 71–90. https://doi.org/10.1016/j.dr.2016.06.004

Pycraft, M. (2002). Operation management. Pearson Education.

Quilter-Pinner, H., & Yan, L. (2015). *Islamic finance: Foreign policy opportunities*. Foreign and Commonwealth office. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211254/Islamic_finance_note_final.pdf

Rahi, S. (2017). *Structural equation modeling using SmartPLS*. CreateSpace Independent Publishing Platform.

Råholm, M.-B. (2010). Abductive reasoning and the formation of scientific knowledge within nursing research: Abductive reasoning within nursing research. *Nursing Philosophy: An International Journal for Healthcare Professionals*, *11*(4), 260–270.

Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. (2016). *Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3.0.* Pearson Malaysia.

Razak, S. S., Saiti, B., & Dinç, Y. (2019). The contracts, structures and pricing mechanisms of sukuk: A critical assessment. *Borsa Istanbul Review*, *19*, S21–S33. https://doi.org/10.1016/j.bir.2018.10.001

Rea, L. R., & Parker, R. A. (2005). *Designing and conducting survey research: A comprehensive*. Guide (3rd ed.). Jossey-Bass.

Rehman, A. (2012). Customer satisfaction and service quality in Islamic banking. A comparative study in Pakistan, United Arab Emirates and United Kingdom. *Qualitative Research in Financial Markets, 4*(2/3), 165–175. https://doi.org/10.1108/17554171211252501

Revilla, M. A., Saris, W. E., & Krosnick, J. A. (2014). Choosing the number of categories in agree–disagree scales. *Sociological Methods & Research*, *43*(1), 73–97.

Riaz, U. A. (2014). *Perceptions and experiences of British-based Muslims on Islamic banking and finance in the UK* (Thesis). University of Dundee. http://discovery.dundee.ac.uk/portal/en/theses/perceptions-and-experiences-of-britishbased-muslims-on-islamic-banking-and-finance-in-the-uk(6acc43af-1fac-4994-9aa3-e165056fe80c).html

Riaz, U., Burton, B., & Monk, L. (2017). Perceptions on the accessibility of Islamic banking in the UK—Challenges, opportunities and divergence in opinion. *Accounting Forum*, *41*(4), 353–374. https://doi.org/10.1016/j.accfor.2017.10.002

Riaz, U., Khan, M., & Khan, N. (2017). An Islamic banking perspective on consumers' perception in Pakistan. *Qualitative Research in Financial Markets*, *9*(4), 337–358. https://doi.org/10.1108/qrfm-03-2017-0020

Richter, N. F., Sinkovics, R. R., Ringle, C. M., & Schlägel, C. (2016). A critical look at the use of SEM in international business research. *International Marketing Review*, *33*(3), 376–404. https://doi.org/10.1108/IMR-04-2014-0148

Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. *Long Range Planning*, *45*(5–6), 341–358. https://doi.org/10.1016/j.lrp.2012.09.010

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *JMR, Journal of Marketing Research*, *45*(3), 261–279.

Ringle, C. M., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial Management & Data Systems*, *116*(9), 1865–1886. https://doi.org/10.1108/IMDS-10-2015-0449

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2018). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, *31*(12), 1617–1643. https://doi.org/10.1080/09585192.2017.1416655

Ringle, Sarstedt, & Straub. (2012). Editor's comments: A critical look at the use of PLS-SEM in MIS quarterly. *MIS Quarterly*, *36*(1), iii. https://doi.org/10.2307/41410402

Robertson, G. (2017). *Developing valid and reliable survey scales*. insight2impact. http://i2ifacility.org/system/documents/files/000/000/010/original/Developing_valid_and_reliable_survey_scales_i2i_October_2017.pdf?1507625556

Robinson, M. A. (2018). Using multi-item psychometric scales for research and practice in human resource management. *Human Resource Management*, *57*(3), 739–750.

Rowley, V. (2014). Rise of Islamic Finance in the United Kingdom, The. *UK L. Student Rev.*, *2*, (75).

Ryan, T. P. (2013). *Sample size determination and power*. John Wiley & Sons.

Saiti, B., Aliyu, A. A., & Guran, Y. I. (2019). Why non-Muslims subscribe to Islamic banking? *Qualitative Research in Financial Markets*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/QRFM-01-2018-0005

Saleem, H. (2020, November 23). *Pros and cons of an Islamic mortgage*. Islamicfinanceguru. https://www.islamicfinanceguru.com/islamic-mortgage/pros-and-cons-of-an-islamic-mortgage/

Saleem, H. (2021, February 24). *Are Islamic mortgages cheaper?* IslamicFinanceGuru. https://www.islamicfinanceguru.com/islamic-mortgage-faq/are-islamic-mortgages-cheaper/

Sapsford, R. (2006). *Survey research*. Sage.

Sarstedt, M. (2020). *What is PLS-SEM* [Video]. PLS-SEM Academy. https://www.pls-sem-academy.com/p/what-is-pls-sem

Sarstedt, M., Henseler, J., & Ringle, C. M. (2011). Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results. In M. Sarstedt, M. Schwaiger, & C. R. Taylor (Eds.), *Advances in International Marketing* (pp. 195–218). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2011)0000022012

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2014). PLS-SEM: Looking back and moving forward. *Long Range Planning*, *47*(3), 132–137. https://doi.org/10.1016/j.lrp.2014.02.008

Saunders, M., Lewis, P., & Thornhill, A. (2009). Understanding research philosophies and approaches, *4*, 106–135.

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research methods for business students*. Harlow: Pearson Education.

Schumacker, R. E., & Lomax, R. G. (2016). *A beginner's guide to structural equation modeling* (4th ed.). Routledge.

Scotland Census. (2011). *Scotland Census*. http://www.scotlandscensus.gov.uk/census-results

Sever, I. (2015). Importance-performance analysis: A valid management tool? Tourism Management, 48, 43–53. https://doi.org/10.1016/j.tourman.2014.10.022

Sharma, A. K. (2005). *Textbook of sampling and attributes*. Discovery Publishing House.

Sharma, H., & Aggarwal, A. G. (2019). Finding determinants of e-commerce success: A PLS-SEM approach. *Journal of Advances in Management Research*, *16*(4), 453–471. https://doi.org/10.1108/JAMR-08-2018-0074

Sirakaya-Turk, E. (2011). *Research Methods for Leisure, Recreation and Tourism*. CABI.

Sirakaya-Turk, E., Uysal , M., Hammitt, W., & Vaske, J. (Eds.). (2011). *Research methods for leisure, recreation, and tourism*. CABI.

Smaoui, H., & Ghouma, H. (2020). Sukuk market development and Islamic banks' capital ratios. *Research in International Business and Finance*, *51*, 101064. doi:10.1016/j.ribaf.2019.101064

Sosik, J. J., Kahai, S. S., & Piovoso, M. J. (2009). Silver bullet or voodoo statistics?: A primer for using the partial least squares data analytic technique in group and organization research. *Group & Organization Management*, *34*(1), 5–36. https://doi.org/10.1177/1059601108329198

Stein, J. (2018). *It's time for the financial services industry to regain consumer trust*. CNBC. https://www.cnbc.com/2018/01/12/financial-services-industry-needs-to-regain-consumer-trust.html

Streukens, S., Leroi-Werelds, S., & Willems, K. (2017). Dealing with nonlinearity in importance-performance map analysis (IPMA): An integrative framework in a PLS-SEM context. In H. Latan & R. Noonan (Eds.), *Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications* (pp. 367–403). Springer International Publishing. https://doi.org/10.1007/978-3-319-64069-3_17

Sufian, F., & Zulkhibri, M. (2015). The nexus between economic freedom and Islamic bank profitability in the MENA banking sectors. *Global Business Review*, *16*(5_suppl), 58S-81S. https://doi.org/10.1177/0972150915601256

Tabachnick, B. G., & Fidell, L. S. (2018). *Using multivariate statistics* (7th ed.). Pearson.

Tailab, M. M. K. (2020). Using importance-performance matrix analysis to evaluate the financial performance of American banks during the financial crisis. *Sage Open*, *10*(1), 215824402090207. https://doi.org/10.1177/2158244020902079

Tameme, M. E. M. (2009). *Demand and supply conditions of Islamic housing finance in the United Kingdom: Perceptions of Muslim clients* (Thesis). Durham University. http://etheses.dur.ac.uk/77/

Tameme, M., & Asutay, M. (2012). An empirical inquiry into marketing Islamic mortgages in the UK. *International Journal of Bank Marketing*, *30*(3), 150–167. https://doi.org/10.1108/02652321211222531

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

Tay, L., & Jebb, A. (2016). Scale Development. In S. Rogelberg (Ed.), *The Sage Encyclopedia of Industrial and Organizational Psychology*. Sage Publications, Inc.

Taylor, T., & Geldenhuys, S. (2019). Using partial least squares to measure tourism students' satisfaction with work-integrated learning. In Ş. Sabah (Ed.), *Tourism — perspectives and practices*. Intech Open. https://doi.org/10.5772/intechopen.82048

The Banker. (2015). *Top Islamic financial institutions.* Financial Times Ltd. http://www.thebanker.com/content/download/161219/6363500/file/Top%20Islamic%20Financial%20Institutions.pdf

The Economist. (2015, February 19). Breaking out. https://www.economist.com/news/britain/21644155-britain-bangladeshis-have-overtaken-pakistanis-credit-poor-job-market-when-they-arrived

The Muslim Council of Britain. (2015). *British Muslims in numbers.* http://www.mcb.org.uk/wp-content/uploads/2015/02/MCBCensusReport_2015.pdf

TheCityUK. (2015). *The UK: Leading Western centre for Islamic finance*. https://www.thecityuk.com/research/the-uk-leading-western-centre-for-islamic-finance/

TheCityUK. (2017). *Global trends in Islamic finance and the UK market*. http://ethicalfinancehub.org/wp-content/uploads/2017/12/Global-trends-in-Islamic-finance-and-the-UK-market-2017.pdf

TheCityUK. (2019). *Global trends in Islamic finance and the UK market*. https://www.thecityuk.com/assets/2019/Report-PDFs/7357b6cb9c/Global-trends-in-Islamic-finance-and-the-UK-market-2019.pdf

Thomson Reuters. (2018). *Islamic Finance Outlook*. Thomson Reuters. https://ceif.iba.edu.pk/pdf/Reuters-Islamic-finance-development-report2018.pdf

Trochim, W. M. K. (2020, March 13). *Positivism & Post-Positivism*. Research Methods Knowledge Base. https://conjointly.com/kb/positivism-and-post-positivism/

Tsang, E. W. K., & Williams, J. N. (2012). Generalization and induction: Misconceptions, clarifications and a classification of induction. *MIS Quarterly*, *36*(X).

https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=2398&context=soss_research

UK Finance. (2020). *Largest mortgage lenders*. https://www.ukfinance.org.uk/data-and-research/data/mortgages/largest-mortgage-lenders

UK Trade & Investment. (2014). *UK excellence in Islamic finance*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/367154/UKTI_UK_Excellence_in_Islamic_Finance_Reprint_2014_Spread.pdf

UKIFS. (2013). *UK, the leading western centre for Islamic finance*. DDCAP Group. http://www.londonstockexchange.com/specialist-issuers/islamic/downloads/islamic-finance-2013-f.pdf

Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, *11*(2), 5–40.

Van De Schoot, R., Schmidt, P., De Beuckelaer, A., Lek, K., & Zondervan-Zwijnenburg, M. (2015). Editorial: Measurement invariance. *Frontiers in Psychology*, *6*, https://doi.org/10.3389/fpsyg.2015.01064

Verdict Financial. (2012, October 10). HSBC's exit raises questions about the potential of the UK Islamic mortgage market. http://www.verdictfinancial.com/hsbcs-exit-raises-questions-about-the-potential-of-the-uk-islamic-mortgage-market/

Vieira, E. T. (2017). *Introduction to real world statistics: With step-by-step spss instructions* (1st ed.). Routledge. https://doi.org/10.4324/9781315233024

Walonick, D. S. (1993). Everything you wanted to know about questionnaires but were afraid to ask. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.470.1729

Warde, I. (2012). Status of the Global Finance Industry. In C. R. Nethercott & D. M. Eisenberg (Eds.), Islamic finance: Law and practice (1st ed.). Oxford University Press.

Weber, R. (2004). The rhetoric of positivism versus interpretivism. *MIS Quarterly, 28*(1), iii – xii.

Weijters, B., Cabooter, E., & Schillewaert, N. (2010). The effect of rating scale format on response styles: The number of response categories and response category labels. *International Journal of Research in Marketing*, *27*(3), 236–247.

Weisberg, H., Krosnick, J. A., & Bowen, B. D. (1996). *An introduction to survey research, polling, and data analysis*. Sage.

Wigglesworth, R. (2014). Islamic finance: By the book. https://www.ft.com/content/d7976706-d793-11e3-80e0-00144feabdc0

Wold, H. O. A. (1966). Estimation of principal components and related models by iterative least squares. *Multivariate Analysis*, 391–420.

Wold, H. O. A. (1973). Nonlinear iterative partial least squares (NIPLAS) modelling: Some current developments. In *Multivariate Analysis–III* (pp. 383–407). Elsevier. https://doi.org/10.1016/B978-0-12-426653-7.50032-6

Wold, H. O. A. (1982). Soft modeling: The basic design and some extensions. In K. G. Jöreskog & H. O. A. Wold (Eds.), *Systems under indirect observation: Causality, structure, prediction*. Elsevier Science Publishers.

Wold, H. O. A. (1985). Partial Least Squares. In S. Kotz & N. L. Johnson (Eds.), *Encyclopedia of Statistical Sciences* (pp. 581–591).

Wong, K. K.-K. (2019). *Mastering partial least squares structural equation modeling (PLS-SEM) with SmartPLS in 38 hours*. iUniverse.

World Bank. (2015). *Islamic finance*. http://www.worldbank.org/en/topic/financialsector/brief/islamic-finance

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. The Counseling Psychologist, 34(6), 806–838. https://doi.org/10.1177/0011000006288127

Yap, K. B. (2011). Islamic Banking: The Convergence of Religion, Economic Self-interest and Marketing. In Ö. Sandıkcı & G. Rice (Eds.), *Handbook of Islamic Marketing*. Edward Elgar Publishing.

Yusof, R. M., Bahlous, M., & Haniffa, R. (2016). Rental rate as an alternative pricing for Islamic home financing: An empirical investigation on the UK Market. *International Journal of Housing Markets and Analysis; Bingley*, *9*(4), 601–626.

Yustiardhi, A. F., Aulia, M., & Permatasari, R. O. (2019). Islamic contracts for home financing: A comparative analysis. *International Journal of Management and Applied Research*, *6*(4), 386–396. https://doi.org/10.18646/2056.64.19-030

Zaher, T. S., & Hassan, M. (2001). A comparative Literature survey of Islamic finance and banking. *Financial Markets, Institutions and Instruments*, *10*(4), 155–199. https://doi.org/10.1111/1468-0416.00044

Zakariyah, L. (2012). Legal Maxims and Islamic Financial Transactions: A case study of mortgage contracts and the dilemma for Muslims in Britain. *Arab Law Quarterly*, *26*(3), 255–285.

Zakariyah, L. (2015). Islamic marketing and promotion: A spotlight on the Islamic Bank of Britain. In A. Ali (Ed.), *Handbook of research on Islamic business ethics*. Edward Elgar Publishing.

Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., & Nikanfar, A.-R. (2015). Design and implementation content validity study: Development of an instrument for measuring patient-centered communication. Journal of Caring Sciences, 4(2), 165–178. https://doi.org/10.15171/jcs.2015.01

Appendix A

Existing Research on Islamic Finance in the UK

Author(s)	Research focus/title	Sample size	Type of participants	Data collection method(s)	Data analysis techniques	Main findings/conclusions
Matthews, et al. (2003)	To evaluate the developments in Islamic home finance	N/A[aa]	N/A[aa]	Secondary data	Secondary data analysis	The results showed that the overall market for Islamic home finance was more than £7 billion. The findings also revealed that the demand for Islamic home finance from ethically motivated non-Muslim customers could be significantly high.
Dar (2004)	To quantify the demand for Islamic financial services in the UK	500	Muslim households	Survey	Descriptive analysis Logit modelling	The study revealed that only a 5% strong demand for Islamic finance existed in the UK. There was more demand in the north than in the south. The findings suggested that demand for Islamic financial services may not have been a purely religious phenomenon as ¾ of UK Muslims were at best indifferent to Islamic finance. Non-Muslims may be marginally interested in Islamic finance.
Tameme (2009)	To evaluate the supply-and-demand conditions for Islamic mortgages in the UK	250	Muslim households	Quantitative survey	Descriptive analysis Chi-square test Anova T-test	The study concluded that there was a potentially substantial demand for Islamic home finance in the UK. The results of the study further suggested that the broader social factors and changing lifestyle preferences of Muslims may be increasing the demand for Islamic home finance. There was no difference in perceptions about Islamic home among different Muslim ethnic groups.
Masood, et al. (2009a)	Role of Islamic mortgages in the UK	N/A[aa]	N/A[aa]	Secondary data	Secondary data analysis Comparative analysis	The study summarised that Islamic home finance had dazzling and excellent prospects in the UK.

Author(s)	Research focus/title	Sample size	Type of participants	Data collection method(s)	Data analysis techniques	Main findings/conclusions
Khan (2012)	Islamic finance in the UK: non-Muslims' perceptions and awareness	120[bb]	Non-Muslims	Semi-structured interviews Survey	Descriptive analysis Qualitative analysis	The results indicated that non-Muslims possessed a favourable attitude towards Islamic finance. There appeared to be a lack of understanding among UK non-Muslims with regard to Islamic finance.
Masood and Bellalah (2013)	Islamic mortgages	190	Banking professionals	Survey	Descriptive analysis	The research found that bank service charges were the most important factor when choosing a bank, followed by reputation, recommendations from friends/family, religion and a fast and efficient service.
Hersi (2009)	The role of Islamic finance in tackling financial exclusion in the UK	262[cc]	Everyday Muslims; Islamic bank employees; Academia; Executives of Muslim organisations	Survey Semi-structured interviews	Principle component analysis	The study demonstrated that Islamic financial products currently on offer did not significantly enhance Muslims' financial inclusiveness. There was resilient disbelief about the authenticity of Islamic products. Affordability, acceptability and accessibility of Islamic products were a real cause of concern for the majority of less affluent Muslims in the UK.
Mansour et al. (2010)	Investigating the decision-making process implemented by UK banking customers	156	Muslim and non-Muslim participants	Survey	Descriptive statistics	The findings reported that low service charges were customers' first preference regardless of their religious orientation. This was followed by the Islamic nature of the bank, its reputation, recommendations from friends and relatives, a fast and efficient service, and the uniqueness of the bank's products and services.
Memon and Kamla (2011)	Exploring the ethicality of Islamic finance in the UK from Non-Muslims perspectives	15	Non-Muslims	Semi-structured interviews	Qualitative descriptive analysis	The study concluded that Islamic finance has the ability to attract "cash poor" and customers neglected by conventional banks.
Zakariyah (2012)	Legal maxims and Islamic financial transactions: a case study of mortgage contracts and the dilemma for Muslims in Britain	N/A[aa]	N/A[aa]	Secondary data	Descriptive analysis	The study found that the ambiguity in the claimed Islamic home finance had cast doubt on the certainty of the halality of the Islamic home finance products offered to Muslim home finance customers.

Author(s)	Research focus/title	Sample size	Type of participants	Data collection method(s)	Data analysis techniques	Main findings/conclusions
Akbar, Shah and Kalmadi (2012)	Evaluating user perceptions of Islamic banking practices in the UK	35	Muslim customers	Online survey	Descriptive analysis	The findings suggested that there was potential for Islamic products and services in the UK. Islamic banking was not yet fully aligned with the paradigm version of Islamic finance.
Rehman (2012)	Customer satisfaction and service quality in Islamic banking	225[dd]	Muslim customers	Survey	Descriptive and regression analyses	The findings illustrated that Islamic banking consumers from the UK and Pakistan considered assurance, reliability and empathy as essential components in terms of their satisfaction, while UAE participants believed that assurance and tangibles were significant dimensions of satisfaction.
Riaz (2014)	To ascertain the perceptions and experiences of British-based Muslims with regard to Islamic banking and finance in the UK	123[ee]	Everyday Muslims; Islamic scholars; Islamic bank employees	Interviews Survey	Descriptive analysis Qualitative analysis	The findings revealed that a majority of Muslims were not happy or satisfied with the products and services offered by Islamic banks in the UK. There was also a lack of understanding of Islamic products among Muslims in the UK and a scarcity of qualified Sharia'h scholars in the industry.
Hussain (2014)	Evaluating the performance and potential of Islamic finance in the UK	233	Muslim and non-Muslim customers of Islamic and conventional banks	Survey Secondary data	Descriptive analysis Financial ratio analysis	The study summarised that Islamic finance in the UK had favourable prospects, presenting a suitable alternative to the conventional system.
Ahmad (2014)	A cross-product analysis of the Islamic home finance market: a case study of the UK	N/A[aa]	N/A[aa]	Secondary research	Secondary data analysis	The study recommends the establishment of an independent Sharia'h advisory board to analyse the issues pertaining to Islamic home finance
Galadima (2015)	Investigating the UK government's discourse on the use of Islamic home purchase plans	188[ff]	Ordinary Muslims; professional Muslims	Survey Interviews Focus groups	Descriptive analysis Chi-square Interpretive analysis	The results suggested that financial inclusion for Muslim minorities in the UK had not been fully met yet and they were still driven to explore alternatives. The Islamic home finance market had been pertinacious right from its inception with contestations about its legitimacy which have been authenticated by Sharia'h scholars while contested by imams. There was an observed resistance to the continued presence of Sharia'h scholars beyond the initial legitimisation of the industry.

Author(s)	Research focus/title	Sample size	Type of participants	Data collection method(s)	Data analysis techniques	Main findings/conclusions
Yusof, Bahlous and Haniffa (2016)	Rental rate as an alternative pricing for Islamic home financing: An empirical investigation on the UK Market.	N/A[aa]	N/A[aa]	Secondary research	Time series analysis	The study proposed an alternative pricing benchmark for Islamic banks based on the rental rate of the property (RPI) and the UK house price index (HPI). This would replace the conventional mortgage rates. The study suggested that Islamic banks in the UK should consider incorporating the proposed Islamic rental rate index (RR-I). However, the proposed rental rate of the property failed to take account of the physical attributes of the property, which are critical factors in the evaluation process.
Riaz, Burton and Mont (2017)	Perception on the accessibility of Islamic banking in the UK	112 [gg]	Everyday Muslims Islamic bankers Religious scholars	Semi-structured interviews Survey	Descriptive analysis Qualitative analysis	The findings of the study revealed that the UK-based Muslims and scholars unanimously agree with the issue of accessibility with Islamic finance, due to the lack of online banking facilities, branch network and complex terminology of Islamic banking products. In contrast, bankers' views appeared to be out of line with Muslim customers' and scholars' views on some accounts.
Alissa (2018)	A comparative study to improve the legal and financial system of mortgages in Saudi Arabia, with a regulatory analysis of the US and the UK, and case analyses from the UK, Sharjah, Dubai and Saudi Arabia	N/A[aa]	N/A[aa]	Secondary research	Secondary data analysis	The study recommends establishing Sharia'h committees at all Islamic banks and national committees at a country level in Saudi Arabia, the UK and the USA. The research also suggests that the Sharia'h committees should work in tandem with each other and achieve a high level of standardisation of mortgage products

[aa] – secondary research

[bb] – 100 questionnaires, 20 interviews

[cc] – 255 questionnaires, 7 interviews

[dd] – 75 participants each from Pakistan, the UAE and the UK

[ee] – 25 everyday Muslims (interviews), 60 Islamic scholars and 38 Islamic bank employees (survey)

[ff] – 188 everyday Muslims (survey), 20 Muslims (interviews) and 17 (focus group from various professions)

[gg] – 22 everyday Muslims (semi structured interviews), 57 scholars (survey) and 33 Bankers (survey)

Appendix B

Content Validation of Scale Constructs and Items

Title: Modelling the Prospects for Islamic Home Finance in the UK from the Perspective of Muslim and non-Muslim Financial Experts

Dear Sir/Madam,

I am currently conducting research with the aim of modelling the prospects for Islamic home finance in the UK from the perspective of Muslim and non-Muslim financial experts.

Below is a prospective instrument which I have formulated based on previous studies to measure the construct of interest. The current stage is to validate the content items to establish whether they match their operational definition.

I would be grateful if you could spend some time reading through the items and assess their content validity.

Please respond to the exercise by indicating whether each item is a "**Perfect Match**, "**Moderate Match**" or "**Poor Match**".

I thank you in advance for your time and expertise.

Construct and operational definition	**Questionnaire items**	**Interval Likert scale**	**Your Assessment**		
			Perfect match (maintain as it is)	**Moderate match** (maintain item, but it needs some refining)	**Poor match** (remove item)
Accessibility This construct refers to the extent to which Islamic home finance in the UK is readily accessible (and comprehensible) to potential clients	Islamic home finance is conveniently accessible to potential clients	1= strongly disagree 10= strongly agree			
	There is now more awareness of the existence of Islamic home finance				
	Islamic home finance products are easily understandable to the majority of potential clients				
	The majority of potential clients are familiar with the concept of Islamic home finance				
	The majority of potential clients have a basic knowledge of the underlying contract in Islamic home finance				
	The majority of potential clients are aware of the overall terms and conditions of Islamic home finance				

Construct and operational definition	Questionnaire items	Interval Likert scale	Your Assessment		
			Perfect match (maintain as it is)	**Moderate match** (maintain item, but it needs some refining)	**Poor match** (remove item)
Extendibility This construct refers to the extent to which Islamic home finance is easily extendible to potential clients	Islamic home finance has relatively lenient approval criteria	1= strongly disagree 10= strongly agree			
	It is easy for a potential client to secure Islamic home finance				
	Islamic home finance involves simple procedures from start to finish				

Construct and operational definition	Questionnaire items	Interval Likert scale	Your Assessment		
			Perfect match (maintain as it is)	**Moderate match** (maintain item, but it needs some refining)	**Poor match** (remove item)
Affordability This construct refers to the extent to which Islamic home finance is affordable or cost-effective for UK home finance customers	Islamic home finance is affordable for the majority of customers	1= strongly disagree 10= strongly agree			
	Islamic home finance is comparatively inexpensive				
	Islamic home finance requires a small initial deposit				
	The arrangement fees for Islamic home finance are relatively low				

Construct and operational definition	Questionnaire items	Interval Likert scale	Your assessment		
			Perfect match (maintain as it is)	**Moderate match** (maintain item, but it needs some refining)	**Poor match** (remove item)
Authenticity This construct refers to the extent to which Islamic home finance is perceived as bona fide and trustworthy	Islamic home finance in the UK complies with Islamic jurisprudence	1= strongly disagree 10= strongly agree			
	Islamic home finance is genuinely a Shariah-compliant finance product				
	Islamic home finance is a more ethical mode of finance				

Construct and operational definition	Questionnaire items	Interval Likert scale	Your assessment		
			Perfect match (maintain as it is)	**Moderate match** (maintain item, but it needs some refining)	**Poor match** (remove item)
Prospects This construct refers to the extent to which there is a significant demand for Islamic home finance in the UK and the overall future prospects for IHF	There is a significant demand for Islamic home finance in the UK	1= strongly disagree 10= strongly agree			
	Islamic home finance is appealing to all faiths and beliefs				
	The long-term prospects for Islamic home finance are good				
	Islamic home finance is compatible with Western financial markets, such as the UK's				

Appendix C

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Survey

A study on "Modelling the Prospects for Islamic Home Finance in the UK from the Perspective of Independent Mortgage Brokers"

The following are statements that relate to the factors associated with the prospects for Islamic home finance in the UK. Please state your level of agreement on the given statements. You can mark your statement anywhere from 1 to 10, where 1= strongly disagree; 10 = strongly agree.

Accessibility
The following statements (**1-6**) relate to the **accessibility** of Islamic home finance in the UK. Please indicate how strongly you agree or disagree with the following statements.

	Statement	Strongly Disagree									Strongly Agree
1	Islamic home finance is conveniently accessible to potential clients	1	2	3	4	5	6	7	8	9	10
2	There is now more awareness of the existence of Islamic home finance	1	2	3	4	5	6	7	8	9	10
3	Islamic home finance products are easily understandable to the majority of clients	1	2	3	4	5	6	7	8	9	10
4	The majority of potential clients are familiar with the concept of Islamic home finance	1	2	3	4	5	6	7	8	9	10
5	The majority of potential clients have a basic knowledge of the underlying contract in Islamic home finance	1	2	3	4	5	6	7	8	9	10
6	The majority of potential clients are aware of the overall terms and conditions of Islamic home finance	1	2	3	4	5	6	7	8	9	10

Extendibility
The following statements (**7-9**) relate to the **extendibility** of Islamic home finance in the UK. Please indicate how strongly you agree or disagree with the following statements.

	Statement	Strongly Disagree									Strongly Agree
7	Islamic home finance has relatively lenient approval criteria	1	2	3	4	5	6	7	8	9	10
8	It is easy for a potential client to secure Islamic home finance	1	2	3	4	5	6	7	8	9	10
9	Islamic home finance involves simple procedures from start to finish	1	2	3	4	5	6	7	8	9	10

Affordability
The following statements (**10-13**) relate to the **affordability** of Islamic home finance in the UK. Please indicate how strongly you agree or disagree with the following statements.

	Statement	Strongly Disagree									Strongly Agree
10	Islamic home finance is affordable for the majority of customers	1	2	3	4	5	6	7	8	9	10
11	Islamic home finance is comparatively inexpensive	1	2	3	4	5	6	7	8	9	10
12	Islamic home finance requires a small initial deposit	1	2	3	4	5	6	7	8	9	10
13	The arrangement fees for Islamic home finance are relatively low	1	2	3	4	5	6	7	8	9	10

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Authenticity
The following statements (**14-16**) relate to the **trustworthiness** of Islamic home finance in the UK.
Please indicate how strongly you agree or disagree with the following statements.

	Statement	Strongly Disagree									Strongly Agree
14	Islamic home finance in the UK complies with Islamic jurisprudence	1	2	3	4	5	6	7	8	9	10
15	Islamic home finance is genuinely a Shariah-compliant finance product	1	2	3	4	5	6	7	8	9	10
16	Islamic home finance is a more ethical mode of finance	1	2	3	4	5	6	7	8	9	10

Prospects
The following statements (**17-20**) relate to the **demand** and the overall **future prospects** of Islamic home finance in the UK.
Please indicate how strongly you agree or disagree with the following statements.

	Statement	Strongly Disagree									Strongly Agree
17	There is a significant demand for Islamic home finance in the UK	1	2	3	4	5	6	7	8	9	10
18	Islamic home finance is appealing to all faiths and beliefs	1	2	3	4	5	6	7	8	9	10
19	The long-term prospects for Islamic home finance are good	1	2	3	4	5	6	7	8	9	10
20	Islamic home finance is compatible with Western financial markets, such as the UK's	1	2	3	4	5	6	7	8	9	10

21. Your work experience

- ☐ Below 3 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ 15+ years

22. Please specify your religious affiliation

- ☐ Muslim
- ☐ Non-Muslim

23. If non-Muslim, please specify (optional)

24. Please feel free to add any additional comments related to this research below:

Thank you for taking the time to complete the questionnaire.

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Appendix D

Publications

Ahmed, T., Kabir, S., & Aziz, A. (2020). Exploring the prospects for Islamic home finance in the UK: Evidence from the industry practitioners' perspective. International Journal of Business & Society, 21(1), 353–368.

Ahmed, T., Kabir, S., & Aziz, A. (2019). Re-assessing the potential of Islamic home finance market in the UK [Paper presentation]. 21st Malaysian Finance Association Conference. Sunway, Malaysia.

Ahmed, T., Kabir, S., & Aziz, A. (2018a). Islamic mortgages versus conventional mortgages: A cost comparison analysis [Paper presentation]. 20th Malaysian Finance Association Conference. Langkawi, Malaysia.

Ahmed, T., Kabir, S., & Aziz, A. (2018b). Islamic home finance in the UK: Evidence from industry practitioners' perspective [Paper presentation]. 20th Malaysian Finance Association Conference. Langkawi, Malaysia.

Awards

Awarded 1st Prize at the 2019 Annual Postgraduate Researchers Poster Conference held at the Coventry University.